MIKHAYLOV, I.A.; POLYAKOVA, A.A.; KHMEL'NITSKIY, R.A.; LOKTIONOVA, Ye.L.; MEDVEDEV, F.A.

Hydrocarbon composition of dearomatized liquid paraffins. Khim. i tekh. topl. i masel 10 no.8:8-12 Ag '65. (MIRA 18:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gazov i polucheniyu iskusstvennogo zhidkogo topliva.

KHMEL'NITSKIY, R.A.; POLYAKOVA, A.A.; PETROV, A.A.; MEDVEDEV, F.A.; STADNICHUK, M.D.

Mass spectra and structure of organic compounds. Part 11: Mass spectra of 1,3-enyne germanium hydrocarbons. Zhur. ob. khim. 35 no.5:773-776 My '65. (MIRA 18:6)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gaza i Leningradskiy tekhnologicheskiy institut imeni Lensoveta.

MATVEYEV, Ye.L.; POLYAKOVA, A.A.; KHMEL'NITSKIY, R.A.; MEDVEDEV, R.A.

Modification of the recording unit of an MKh1303 mass spectrometer. Prib. i tekh.eksp. 10 no.5:172-174 S-O '65. (MIRA 19:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftepererabatyvayushchey promyshlennosti, Moskva.

L 16078-66 EWT(m)/EWP(t) RM

ACC NR: AP6005926 SOURCE CODE: UR/0079/66/036/001/0089/0096

AUTHRO: Chernyak, N. Ya.; Khmel'nitskiy, R. A.; D'yakova, T. V.; Vdovin, V. M.

ORG: Institute of Petrochemical Synthesis, Academy of Sciences SSSR (Institut neftekhimicheskogo sinteza Akademii nauk SSSR)

38
B

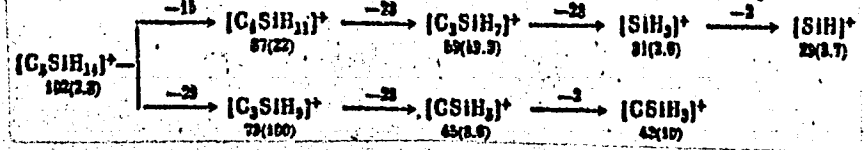
TITLE: Mass spectra study of alkylsilanes

SOURCE: Zhurnal obshchey khimii, v. 36, no. 1, 1966, 89-96

41,55

TOPIC TAGS: organosilicon compound, mass spectrum, silane, ionization

ABSTRACT: Correlations were established between the mass spectra and structure of trimethylethylsilane (I), trimethylpropylsilane (II), trimethylbutylsilane (III), dimethyldiethylsilane (IV), dimethylethylpropylsilane (V), tetraethylsilane (VI), methylethylpropylsilane (VII), and methyldiethylsilane (VIII). The corresponding probable schemes of dissociative ionization are given. For compound (I), the scheme is



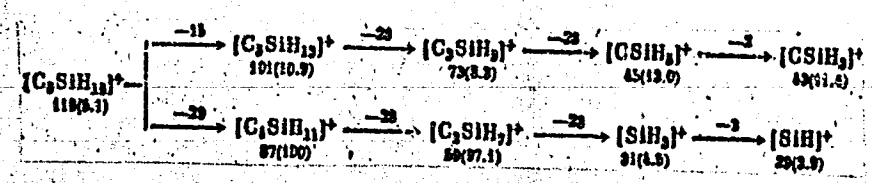
Card 1/3

UDC: 543.51 : 547.245

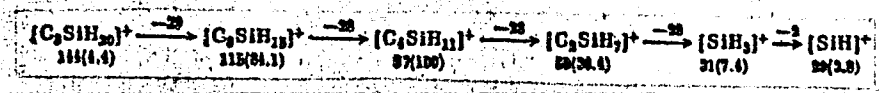
L 16078-66

ACC NR: AP6005926

(where the figure under the formula designates the mass number of the molecular or fragment ion, the figure in parentheses designates the intensity of the corresponding peak in % of maximum value, the broken-line arrow indicates a probable transition, and the solid arrow indicates a transformation of the fragment ion demonstrated by means of a metastable transition). For compounds (II) and (III) the scheme is similar. For compound (IV), the scheme is



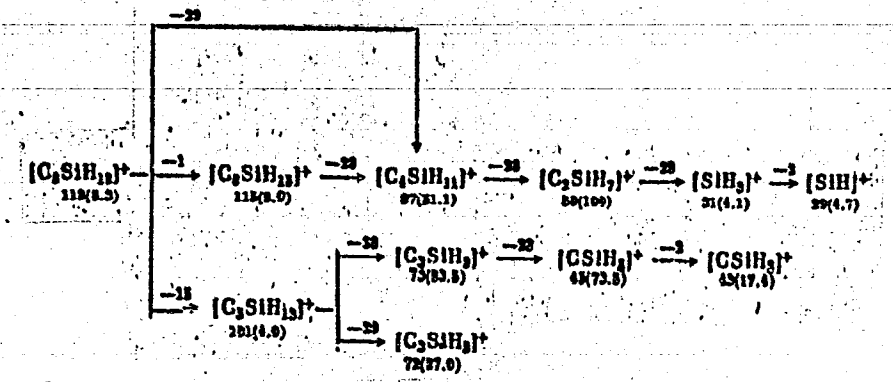
and the dissociative ionization of compound (V) is similar. For compound (VII), the scheme is



Card 2/3

L 16078-66
ACC NR: AP6005926

Compound (VIII) has the scheme



which is analogous to that of compound (VII). The mass spectra of the alkylsilanes and their hydrocarbon derivatives were compared, and it was found that on passing from a tertiary C atom to a tertiary Si atom, an increase in the stability of the molecule is observed. Orig. art. has: 2 figures, 2 tables.

SUB CODE: 07/ SUBM DATE: 17Jul64/ ORIG REF: 003/ OTH REF: 003

Card 3/3

L 16079-66 EWT(m)/EWP(j) RM

ACC NR: AP6005927 SOURCE CODE: UR/0079/66/036/001/0096/0101

AUTHOR: Chernyak, N. Ya.; Khmel'nitskiy, R. A.; D'yakova, T. V.; Vdovin, V. M.; Arkhipova, T. N.

ORG: Institute of Petrochemical Synthesis, Academy of Sciences SSSR (Institut neftekhimicheskogo sinteza Akademii nauk SSSR)

46
B

TITLE: Mass spectra study of silacycloalkanes

SOURCE: Zhurnal obshchey khimii, v. 36, no. 1, 1966, 96-101

TOPIC TAGS: mass spectrum, organosilicon compound, hydrocarbon, ionization

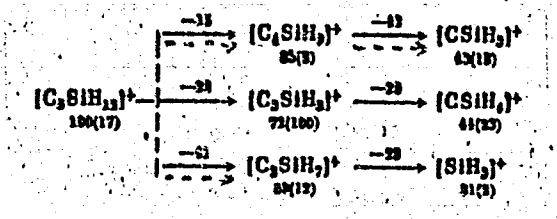
ABSTRACT: Mass spectra of 1,1-dimethyl-1-silacyclobutane (I), 1,1-dimethylsilacyclopentane (II), 1,1-dimethyl-1-silacyclohexane (III), 1-methyl-1-silacyclopentane (IV), and 1-methyl-1-silacyclohexane (V) were studied. Correlations were established between the mass spectra and the structure of the silicon-carbon rings. Probable dissociative ionization schemes of the silacycloalkanes are given. For compound (I), the scheme is as follows:

Card 1/3 UDC: 543.51 : 547.515

2

L 16079-66

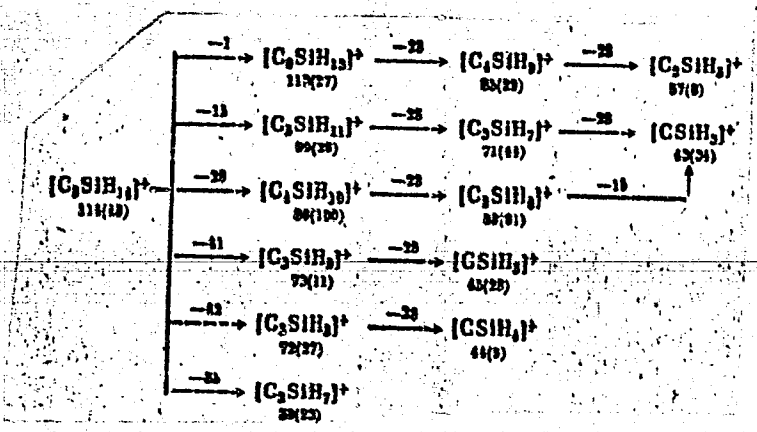
ACC NR: AP6005927



(where solid arrows denote transitions demonstrated by means of a study of "metastable" ions; broken-line arrows indicate proposed transitions; figures above the arrows denote the mass of the detached fragment; figures below the formulas show the mass of the fragment ion; and figures in parentheses denote the intensity of the peak of the given ion in percent of maximum intensity taken as 100%. The dissociative ionization schemes of compounds (II) and (III) are analogous to the above. The paths of formation of ions in the spectra of (I) and (V) are also similar, but the presence of a hydrogen atom linked to the Si atom complicates the picture. The following scheme is proposed:

Card 2/3

L 16079-66
ACC NR: AP5005927



The mass spectra of the silacycloalkanes and their hydrocarbon analogs are compared. Orig. art. has: 1 figure, 2 tables.

SUB CODE: 07/ SUBM DATE: 17Nov64/ ORIG REF: 001/ OTH REF: 001

Card 3/3

L 25272-66 EWT(m)/T WE

ACC NR: AP6017744 SOURCE CODE: UR/0065/65/000/008/0008/0012

AUTHOR: Mikhaylov, I. A.; Polyakova, A. A.; Khmel'nitskiy, R. A.; Loktionova, Ye. L.; Medvedev, F. A.

ORG: VNII NP

TITLE: Hydrocarbon composition of dearomatized liquid paraffins

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 8, 1965, 8-12

TOPIC TAGS: hydrocarbon, aromatic hydrocarbon, petroleum refining, petrochemistry

ABSTRACT: The hydrocarbon composition of highly dearomatized liquid paraffins of different fractional compositions was investigated. It was shown that they consist of paraffin hydrocarbons of normal and branched structure, monocyclic naphthenes, and aromatic hydrocarbons. In marketed samples of paraffins of the Moscow Petroleum Refinery, the content of normal paraffin hydrocarbons was 95%, paraffin hydrocarbons of branched structure 3-4%, naphthene hydrocarbons up to 1%, and aromatic hydrocarbons not more than 0.5%. Normal paraffin hydrocarbons were represented by compounds with from 14 to 22 carbon atoms per molecule, isoparaffin hydrocarbons — from 17 to 24, and naphthene — from 14 to 16 carbon atoms. Marketed paraffins of the Groznyy Petroleum-Oil Plant are characterized by a reduced content of normal-structure paraffin hydrocarbons (90% and lower) and a high content of isoparaffin hydrocarbons (from 8 to 17%). Distribution of normal-structure paraffin hydrocarbons in terms of number of carbon atoms in the molecule was the same as in paraffins from sulfur-containing petroleum stocks, but in a different quantitative ratio. Orig. art. has: 3 figures and 3 tables. [JPRS]

SUB CODE: 11, 07 / SUBM DATE: none

Card 1/1 BLG

UDC: 665.41:553.98

L 01306-67
ACC NR: AP5027029

SOURCE CODE: UR/0120/65/000/005/0172/0174

AUTHOR: Matveyev, Ye. L.; Polyakova, A. A.; Khmel'nitskiy, R. A.; Medvedev, F. A.

ORG: VNII of the Petroleum Processing Industry, Moscow (VNII neftepererabatyvayushchey promyshlennosti)

TITLE: Modification of the recording device of the MKh1303 mass-spectrometer

SOURCE: Pribory i tekhnika eksperimenta, no. 5, 1965, 172-174

TOPIC TAGS: mass spectrometer, oscillograph, circuit design/MKh1303 mass spectrometer, N-700 oscillograph

ABSTRACT: In order to reduce the time of recording, the regular EPP-09 recorder of the MKh1303 mass spectrometer was replaced by the N-700 oscillograph, which permits the recording of signals by 14 galvanometers of various sensitivities. The voltage range of measurements is from 0.005 to 50 v. An overcurrent protection was provided for each galvanometer circuit. A circuit arrangement of six MO11A galvanometers is schematically illustrated. The galvanometers operate within the 0—40 cps range with a maximum permissible current of 0.3 ma. The current sensitivity is about 1400 mm/ma.m. By using this method, it took only 18 min to obtain the mass spectra for molecular numbers of 50 to 400 under optimum operating conditions of the device. Orig. art. has: 3 figures.

SUB CODE: 07/4/ SUBM DATE: 18Aug64/

Card 1/2

UDC: 621.384.8

KHMEL'NITSKIY, R. Kh., Cand Med Sci -- (diss) "Study of the therapeutic value of lydase in sclerodermia." Moscow, 1960. 13 pp; (First Moscow Order of Lenin Medical Inst im I. M. Sechenov); 250 copies; price not given; (KL, 18-60, 157)

RAKHMANOV, V.A., prof.; KHMEL'NITSKIY, R.Kh.

Histochemical study of changes in the connective tissue of the skin in patients with scleroderma treated with lydase. Sbor. nauch. rab. po lepr. i derm. no.13:103-110 '59. (MIRA 14:6)

1. Chlen-korrespondent AMN SSSR (for Rakhmanov).
(SCLERODERMA) (CONNECTIVE TISSUES)
(HALURONIDASE)

RAKHMANOV, V.A.; KHMEL'NITSKIY, R.Kh.

Mechanism of action of lidase in the treatment of patients with scleroderma. Vest.derm.i ven. 33 no.6:3-7 N-D '59. (MIRA 13:12)

(SCLERODERMA) (HYALURONIDASE)

KHMEL'NITSKIY, R.M.

Project of the Ust'-Labinskaya pilot and model sugar factory. Sakh.prom. 36 no.11:50-56 N '62. (MIRA 17:2)

1. Gosudarstvennyy proyektnyy institut "Giprosakhar".

SOV/144-58-10-13/17

AUTHORS: Lyubchik, M.A., Lecturer; Mogilevskiy, G.V., Candidate of Technical Sciences and Khmel'nitskiy, R.S., Engineer

TITLE: The Design of the Short Circuited Turn on Electro-Magnets with Voltage Coil (Proyektirovaniye korotkozamknutogo vitka elektromagnitov s katushkoy napryazheniya)

PERIODICAL: Izvestiya Vysshikh Uchebnykh Zavedeniy, Elektromekhanika, 1958, Nr 10, pp 135-145 (USSR)

ABSTRACT: In single-phase a.c. electro-magnets short circuited turns are located on the ends of the poles of a magnetic system, as shown in Fig 1, to reduce variations in the tractive force. Because the turn is there the variable force that acts on the armature is always more than a certain minimum value which, to avoid vibration should always be greater than the combined forces due to the spring and the weight of the armature. Electrical design of the short circuited turn consists in determining its active resistance and the power loss in it. Previously published design procedures are briefly reviewed. Eq (6) and (7) are then derived for calculation of the turn resistance and power loss

Card 1/6

The Design of the Short Circuited Turn on Electro-Magnets with Voltage Coil

respectively. The formulae are valid provided that the iron in the magnetic system is not saturated but because of the screening action of the short circuited turn the magnetic induction in the unscreened part of the pole is considerably increased. This effect may be big enough to make the formulae inapplicable. However, it is shown that with an E-shaped core the short circuited turns are usually placed on the outer poles and because of the phase displacement between fluxes the instant at which the force on the outer poles is a minimum does not coincide with that at which the force in the middle pole is zero, therefore, the minimum force is greater than it otherwise would be and specially accurate analytical calculation of it is not necessary. Experimental verification of the electrical design of a short circuited turn on a relay type RE-2100 showed that the calculation was sufficiently accurate. In order for the magnetic system to work well, allowance must be made for change in the resistance of the ring due to heating, which is very necessary as in some cases the

The Design of the Short Circuited Turn on Electro-Magnets with Voltage Coil

temperature rise of the ring can be 200 to 250°C. Unless care is taken the heat generated in the ring may damage neighbouring insulation. Practical methods of constructing the short circuited turns on magnetic systems may be classified into two kinds as illustrated in Fig 1; in one case the screen is located in a slot in the steel and in the other case part of the ring is in air round the outside of the steel. In considering the temperature distribution in the ring it is convenient to consider separately the parts that are in contact with steel only and those that are in contact with air as well. A graph representing the temperature distribution in the short circuited turn is shown in Fig 2 and formulae for the temperature rises in the two sections are given in Eq (12). Actual values of temperature rise are somewhat less in air and higher in steel than the values given by Eq (12) and the extent of the error is next determined. As a result Eq (15) are derived that can be used to determine the temperature

rise at any point in the turn including the maximum temperature rise. In practice the part of the turn that is not in steel may be made of increased section to reduce the temperature rise, in this case the design procedure is the same but certain correction factors are introduced. When using the procedure for the thermal design of short circuited turns it is necessary to know the appropriate heat transfer coefficients and appropriate values are recommended for particular cases. Further problems in the design of short circuited turns in magnetic systems concern the material and shape of the turn, its location in the magnetic system and the method of fixing it to the pole. If the system only works occasionally and without shock the ring may be made up of sheet and may be made removable, see Fig 3a. If there are considerable shocks the ring must be firmly fixed in the slot. Proposed methods of fixing are described and illustrated in Fig 3b and c. In equipment where the coil is permanently fixed the screens may be used as a fixing device as shown in Fig 4. When the

The Design of the Short Circuited Turn on Electro-Magnets with Voltage Coil

magnetic system has three legs, the short circuited turns are usually installed on the outer legs for better cooling, though this gives some difficulties in making secure fixings, because the outer legs are smaller in cross-section than the central ones. Various methods of fixing the screen in the slot are illustrated in Fig 5. When the equipment is required to have a very long life the screens may be a weak link, the main cause of failure being fatigue stresses caused by repeated impact of the magnetic system. To increase the mechanical strength of the screen, besides using strong materials of adequate size it is advisable firmly to secure overhanging parts of the screen and recommended procedures are illustrated in Fig 6 and briefly described. Spring dampers are sometimes used to reduce impact shocks, see Fig 7. Sometimes arrangements are made to fit the screen at a place which is not subject to impact shocks, see Fig 8. A numerical example of

SOV/144-58-10-13/17

The Design of the Short Circuited Turn on Electro-Magnets with Voltage Coil

screen design is given in an appendix. There are 8 figures and 6 Soviet references.

ASSOCIATION: Kafedra Elektricheskikh Apparatov Khar'kovskogo Politekhnicheskogo Instituta (Chair of Electrical Apparatus, Khar'kov Polytechnical Institute)
(Lyubchik, Mogilevskiy) Khar'kovskiy elektromekhanicheskiy zavod (Khar'kov Electromechanical Plant) (Khmel'nitskiy)

SUBMITTED: 31st October, 1958

Card 6/6

KHMEL'NITSKIY, R.Z.

112-2-2760

Translation from: Referativnyy Zhurnal, Elektrotekhnika, 1957, Nr 2, p. 21 (USSR)

AUTHOR: Khmel'nitskiy, R. Z.

TITLE: Certain Problems Related to High Temperature Regenerative Heating of Gases (Nekotoryye voprosy vysokotemperaturnogo regenerativnogo nagreva gazov)

PERIODICAL: Tr. Mosk. energ. in-ta, 1956, Nr 24, pp. 125-133

ABSTRACT: The design and construction principles of a high temperature regenerator made of heat resistant steel for heating air to 700 to 1,000° with flue gases are explained. It is necessary to intensify internal heat emission in order to maintain the regenerator wall temperature at the permissible level. This is ensured by the installation of radiation absorbing inserts opposite the medium being heated. The results of calculations and experimental research on a model representing a tube of annular cross section are given. The data obtained were utilized in the construction of a high temperature, metallic regenerator plant. V.Ya.G.

Card 1/1

BERLOVSKIY, V.D., inzh.; KHMEL'NITSKIY, R.S., inzh.

Using induction transducers in the electric driving of mine hoisting machinery. Gor. zhur. no.7:50-53 Jl '64. (MIRA 17:10)

1. Khar'kovskiy elektromekhanicheskiy zavod.

KHMEL'NITSKIY, R. Z. Cand Tech Sci -- (diss) "High-temperature heating of air in steel recuperators." Mos, 1959. 16 pp (Min of Higher and Secondary Specialized Education RSFSR. Mos Order of Len in Power Engineering Inst), 150 copies (KL, 43-59, 125)

KHMEL'NITSKIY, R.Z.

Heating of air to high temperature in steel regenerators. Gaz. prom. 4 no.5:13-19 My '59. (MIRA 12:7)
(Heat regenerators) (Heat--Transmission)

KHMEL'NITSKIY, R.Z., kand. tekhn. nauk; GIMMEL'FARB, M.L., dots., red.

[Method for calculating the index for the gasification of solid fuels; student manual for course and diploma projects] Metodika rascheta pokazatelei gazifikatsii tverdykh topliv; uchebnoe posobie dlia kursovogo i diplomnogo proektirovaniia. Moskva, Mosk. energeticheskii in-t, 1962. 29 p.
(MIRA 17:4)

ALEKSANDROVA, M.A.; ASINOVSKIY, E.I.; BALANDIN, V.V.; BRODYANSKIY, V.M., kand. tekhn. nauk; VAKHRAMEYEVA, Ye.A.; VERBA, M.I., kand. tekhn. nauk; VORONIN, T.A., kand. tekhn. nauk; GIRSHFEL'D, V.Ya., kand. tekhn. nauk; DEYCH, M.Ye., prof. doktor tekhn. nauk; IVIN, F.A.; LAPSHIN, M.I., kand. tekhn. nauk; LIPOV, Yu.M., kand. tekhn. nauk; LYUBARSKAYA, A.F.; MAKARENKO, I.D.; MIRIMOVA, V.M.; NEVLER, S.Ye.; ROZANOV, K.A., kand. tekhn. nauk; ROTACH, V.Ya., kand. tekhn. nauk; KHMEL'NITSKIY, R.Z., kand. tekhn. nauk; SHEVCHENKO, E.G.; BOGOMOLOV, B.A., red.; VAYNSHTEYN, K.N., spets. red.; LICHAK, S.K., spets. red.

[German-Russian heat engineering dictionary] Nemetsko-russkii teplotekhnicheskii slovar'. Moskva, Sovetskaia entsiklopediia, 1964. 512 p. (MIRA 18:1)

1. Moscow. Energeticheskiy institut. 2. Moskovskiy energeticheskiy institut (for all except Vaynshteyn, Lichak).

KHMEL'NITSKIY, R.Z.; AKHMEDOV, D.M.; GALAFUTNIK, I.A.

Kinetics of carbon dioxide reduction by carbon at high temperatures. Izv. AN Uz. SSR. Ser. tekh. nauk 9 no.2: 76-83 '65. (MIRA 18:8)

1. Moskovskiy ordena Lenina energeticheskiy institut.

MUROMSKIY, S.N.; SOSNIN, Yu.P.; TYCHKOV, I.N.; KHMEL'NITSKIY, S.A.

Gas contact water heaters and prospects for their use. Sbor. nauch. rab. AKKH no.9:3-17 '61. (MIRA 16:1)
(Water heaters)

KHMEL'NITSKIY S. G.

AUTHORS: Bachinskiy, N. M., Doctor of Art, 30-1-39/39
Khmel'nitskiy, S. G., Architect.

TITLE: A Book on the Art of the Tadzhik People (Kniga ob iskusstve tadzhikskogo naroda).

PERIODICAL: Vestnik AN SSSR, 1958, Vol. 28, Nr 1, pp. 143-145 (USSR).

ABSTRACT: This book is a reference work published by the Institute for History, Archeology, and Ethnography AS Tadzhik SSR.
The authors of this article, Doctor N. M. Bachinskiy and S. G. Khmel'nitskiy, reviewed the above book thoroughly.
There is 1 Slavic reference.

AVAILABLE: Library of Congress.

1. Art-USSR

Card 1/1

30(6)
AUTHOR: Khmel'nitskiy, S. G. SOV/30-59-4-49/51

TITLE: A Book on the History of Central Asiatic Architecture (Kniga po istorii sredneaziatskogo zodchestva)

PERIODICAL: Vestnik Akademii nauk SSSR, 1959, Nr 4, pp 148 - 149 (USSR)

ABSTRACT: This is a review by the abstracter concerning the book written by G. A. Pugachenkova. The book was published in 1958 under the title "Puti razvitiya arkhitektury Yuzhnogo Turkmenistana pory rabovladeniya i feodalizma. Trudy Yuzhno-turkmenskoy arkheologicheskoy kompleksnoy ekspeditsii" by the publishers of the AS USSR. (492 pp, 1,300 copies, 26 roubles, 15 kopeks).

Card 1/1

25(1) SOV/117-59-6-16/33

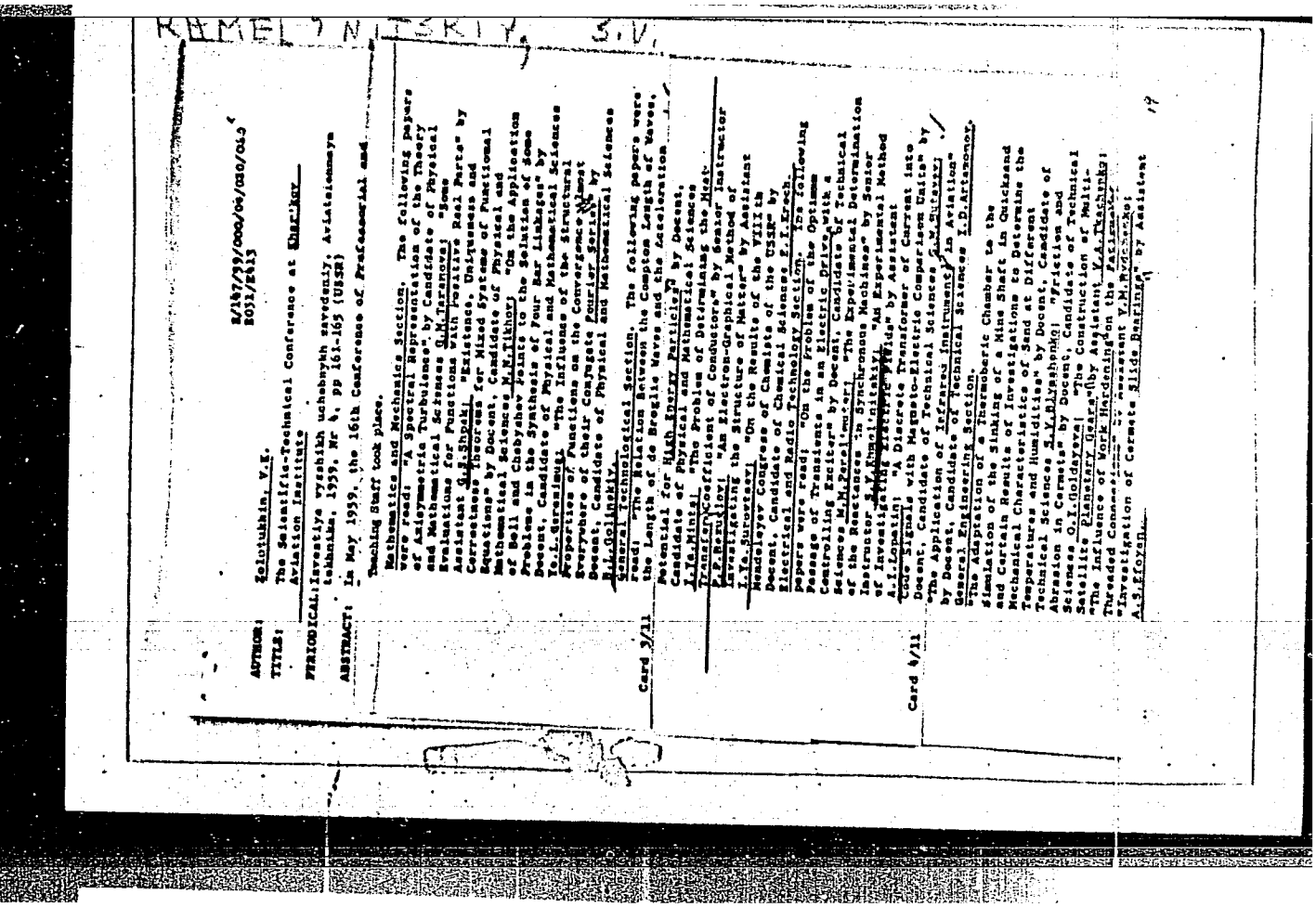
AUTHORS: Khmel'nitskiy S.S. and Borshch, S.N., Engineers

TITLE: Machining Cast Iron With Hard Alloy "VK2"

PERIODICAL: Mashinostroitel', 1959, Nr 6, p 31 (USSR)

ABSTRACT: The experience of two Leningrad machine building plants has shown that by using alloy "VK2", instead of "VK8", for machining "Sch 28-48" and "Sch 38-48" cast iron, the speed of machining can be increased by 50 to 100% (see table). Cutters tipped with alloy "VK2" require careful sharpening; lapping of the cutters after sharpening is done with boron carbide. The hardness and wear resistance of the "VK2" alloy is very high. There is 1 table.

Card 1/1



RAMELNITSKIY, S.V.

S/137/59/000/06/030/045
E031/E113

AUTHOR: Kolotukhin, V.E.

TITLE: The Scientific-Technical Conference at Khar'kov Aviation Institute

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Aviatsionnaya tekhnika, 1959, Nr 4, pp 161-165 (USSR)

ABSTRACT: In May 1959, the 16th Conference of Professorial and Teaching Staff took place.

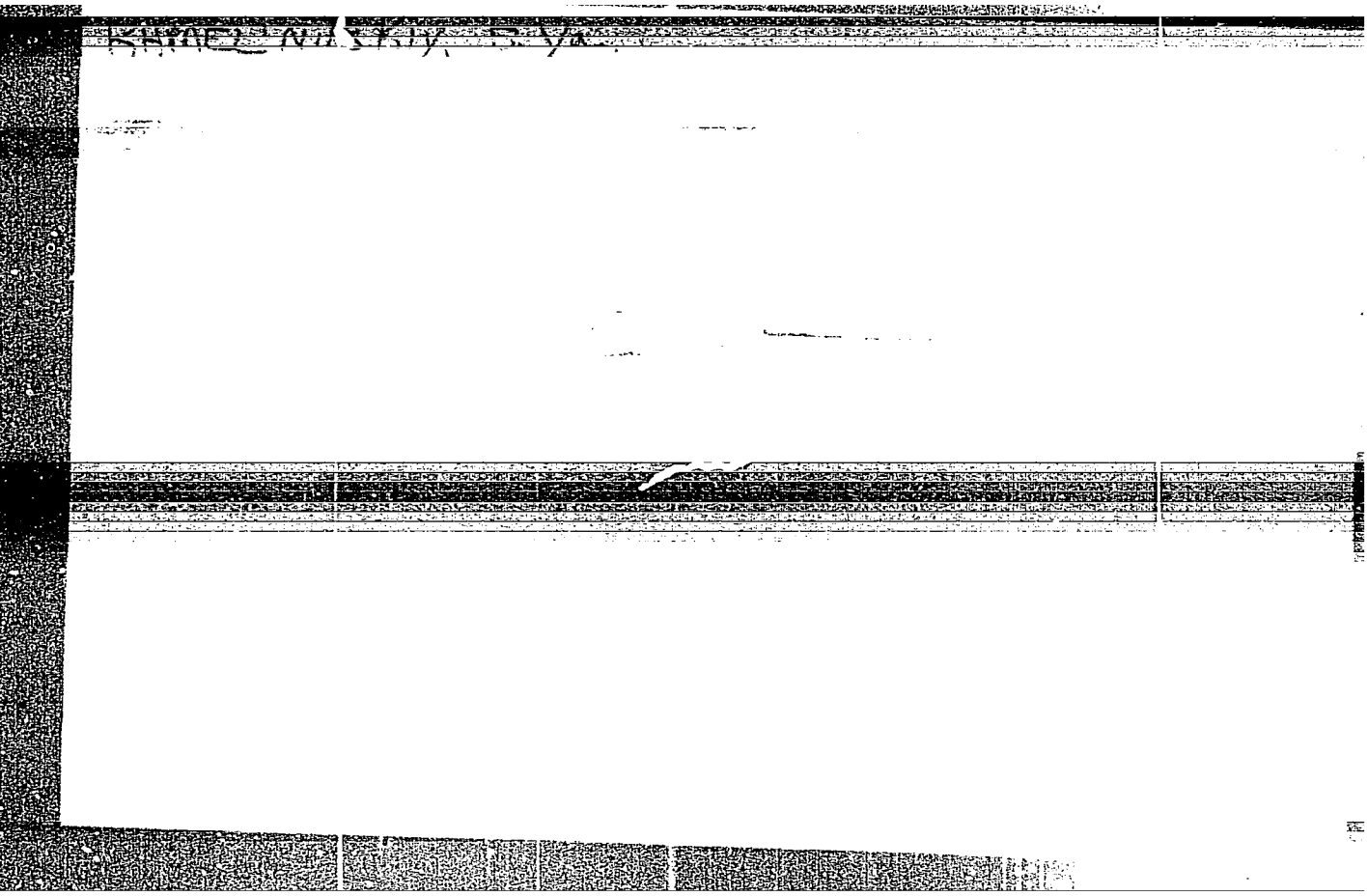
Mathematics and Mechanics Section. The following papers were read: "A Spectral Representation of the Theory of Anisymmetric Turbulence" by Candidate of Physical and Mathematical Sciences G.K.Tarasenko; "Some Evaluations for Functions with Positive Real Parts" by Assistant A.F.Shpak; "Existence, Uniqueness and Correctness Theorems for Mixed Systems of Functional Equations" by Docent, Candidate of Physical and Mathematical Sciences M.K.Fikhtengol'ts; "On the Application of Bell and Chebyshev Points to the Solution of Some Problems in the Synthesis of Four Bar Linkages" by Docent, Candidate of Physical and Mathematical Sciences Yu.I.Gerasimov; "The Influence of the Structural Properties of Functions on the Convergence Almost Everywhere of their Conjugate Fourier Series" by Docent, Candidate of Physical and Mathematical Sciences B.I.Golubov.

General Technological Section. The following papers were read: "The Relation Between the Compton Length of Waves, the Length of de Broglie Waves and the Acceleration Potential for High Energy Particles" by Docent, Candidate of Physical and Mathematical Sciences I.Ya.Minin; "The Problem of Determining the Heat Transfer Coefficient of Conductors" by Senior Instructor P.F.Bondarenko; "An Electron-Graphical Method of Investigating the Structure of Matter" by Assistant I.Ya.Surovtsev; "On the Results of the VIII th Mendeleyev Congress of Chemists of the USSR" by Docent, Candidate of Chemical Sciences F.I.Krech. The following papers were read: "On the Problem of the Optimum Passage of Transients in an Electric Drive with a Controlling Exciter" by Docent, Candidate of Technical Sciences M.M.Perelmuter; "The Experimental Determination of the Resistances in Synchronous Machines" by Senior Instructor A.V.Kharchenko; "An Experimental Method of Investigating Disturbed Fluid" by Assistant A.I.Lopatin; "A Discrete Transformer of Current into Code Signal with Magneto-Electric Comparison Units" by Docent, Candidate of Technical Sciences G.M.Utevskiy; "The Application of Infrared Instruments in Aviation" by Docent, Candidate of Technical Sciences I.D.Artamonov.

General Engineering Section.
Simulation of a Thermoacoustic Chamber to the and Certain Results of Investigations to Determine the Mechanical Characteristics of Sand at Different Temperatures and Humidities" by Docent, Candidate of Technical Sciences S.V.Plyashenko; "Friction and Abrasion in Carmets" by Docent, Candidate of Technical Sciences O.I.Goldayeva; "The Construction of Multi-Satellite Planetary Gears" by Assistant V.A.Trashutin; "The Influence of Work Hardening on the Fatigue Threaded Connections" by Assistant V.N.Ryzhenko; "Investigation of Cermets Slide Bearings" by Assistant A.S.Eforen

Card 3/11

Card 4/11



KUZNETSOV, V.; KHMEL'NITSKIY, V.

Mechanism for loading and unloading cable drums. Avt.transp. 41 no.10:40-41 O '63. (MIRA 16:10)

KHMEL'NITSKIY, V. V.

COUNTRY : USSR
CATEGORY : General Biology. B
Genetics. Animal Genetics.
ABS. JOUR. : RZhBiol., No. 5, 1959, No. 19165

AUTHOR : Khmel'nitskiy, V. V.
INST. : Yaroslavl' Institute of Agriculture.
TITLE : The Role of Material Heredity in Crossing and Selecting Purebred Animals.

ORIG. PUB. : Tr. Yaroslavsk. s.-kh. in-ta, 1957, 4, 242-251

ABSTRACT : The author is of the opinion that the historical review of reproductive methods testifies to the "greater philogenetic antiquity of the maternal organism and to a lesser philogenetic antiquity of the paternal organism." This, as well as the mentor influence of the mother upon her progeny which develops within her during embryogenesis, produce a predominantly maternal hereditary influence on farm animals. To prove this theses, the author quotes examples taken from text books and some studies by Darvin, Michurin, Kuleshov

Card: 1/2

KHMELNITSKIY, V. V.

Country : USSR
Category : Farm Animals.
General Problems. Q
Abs. Jour : Ref Zhur-Biol., No 21, 1958, 96806

Author : Khmel'nitskiy, V. V.
Institut. : -
Title : Selection, Matching and Breeding Methods (A Discussion of A. Ya. Malakhovskiy's Article "Interdependence of Selection, Matching and* Orig Pub. : Zhivotnovodstvo, 1957, No 9, 56-60

Abstract : The scientific problems of the theory of breeding farm animals are discussed. The breeding methods include measures employed for selecting, matching and raising of young stock, in organizing feeding, keeping and the utilization of animals. Universally recognized definitions of basic breeding methods are absent in zootechnical literature. Matching and selection are different methods which are interdependent. In the classification of purposeful matching various types of matching (homogenous

Card: 1/3

*Breeding Methods").

Country	: USSR
Category	: Farm Animals. General Problems. Q
Abs. Jour	: Ref Zhur-Biol., No 21, 1958, 96806
Author	:
Institut.	:
Title	:
Orig Pub.	:
Abstract	: cussed: inbreeding on animal farms, transformative breeding, pedigree breeding, breeding for use.

Card: 3/3

KHMEL'NITSKIY, YE. A.

USSR/Physics - Chance Processes Oct 52

"Statistical Properties of Rounded Probability Processes," V. M. Rozov and Ye. A. Khmel'nitskiy

"Zhur Tekh Fiz" Vol 22, No 10, pp 1618-1623

PA 236T92

Authors consider the statistical properties of a stationary chance process representing the rounding off of several original stationary processes. Solve 2 problems from field of radio communication. Cites V. I. Bunimovich (Fluctuational Processes in Radio Receivers. Moscow 1951). Conclude that a new rounded chance process possesses least mean square deviation, but greatest mean value.

236T92

AID P - 4915

Subject : USSR/Electronics

Card 1/2 Pub. 90 - 9/10

Author : Khmel'nitskiy, Ye. A.

Title : Letter to the editor

Periodical : Radiotekhnika, 11, 6, 71-74, Je 1956

Abstract : The author writes to the editor concerning an article in this journal (#10, 1955) by V. I. Zhitomirskiy "Determination of probabilities of selective fading caused by interfering signals". He disagrees with the basic conclusion of this article that the probability of failure of reception can not be diminished by using an extended "double-zeep" antenna. The author also claims that V. I. Zhitomirskiy insufficiently defined the area of practical application of the problem investigated and makes some clarifications. He finds some mistakes in the development of the formulae and concludes that in

Radiotekhnika, 6, 71-74, Je 1956 AID P - 4915

Card 2/2 Pub. 90 - 9/10

all practically important cases, when the average value of the signal level exceeds the average value of the interference level, the use of extended antennas brings an improvement in the stability of communication. Two diagrams.

Institution : None

Submitted : No date

PHASE I BOOK EXPLOITATION SOV/3957

Khmel'nitskiy, Yefroim Aronovich

Raznesennyy priyem i otsenka yego effektivnosti (Diversity Reception and Evaluation of Its Efficiency) Moscow, Svyaz'izdat, 1960. 49 p. (Series: Lektsii po tekhnike svyazi) Errata slip inserted. 7,500 copies printed.

Sponsoring Agency: USSR. Ministerstvo svyazi. Tekhnicheskoye upravleniye.

Resp. Ed.: V.A. Kuz'min; Ed.: V.I. Bashchuk; Tech. Ed.: S.F. Karabilova.

PURPOSE: This booklet is intended for engineering and technical personnel of operational radio communication establishments and scientific, research and educational institutions and for students specializing in diversity radio reception

COVERAGE: The author presents the experimental data concerning peculiarities of short-wave radio propagation necessary for evaluation of diversity reception stability. He also describes some circuits for signal superimposing in this type of reception, and gives various criteria for evaluating quality of

Card 1/3

communication channels containing interference. The booklet concludes with some examples of determination of effective reception by means of spaced antennas. No personalities are mentioned. There are 10 references: 5 Soviet, 4 English, and 1 German.

TABLE OF CONTENTS:

AVAILABLE: Library of Congress

KM/RLM/mas
7-18-60

Card 3/3

KURKO, V.I.; KHMEL'NITSKIY, Ye.A.

Investigating the colorimetric determining of phenols in smoked sausage with the use of 4-aminoantipyrin. Izv. vys. ucheb. zav.; pishch. tekh. no.4:154-158 '63.
(MIRA 16:11)

1. L'vovskiy torgovo-ekonomicheskiy institut TSentral'nogo soyuza potrebitel'skikh obshchestv SSSR, kafedra tovarovedeniya prodovol'stvennykh tovarov.

KURKO, V.I.; KHMEL'NITSKIY, Ye.A. [Khmel'nyts'kyi, IE.O.]

Antioxidative effect of the various smoking methods. Khar. prom. no.1:25-27 Ja-Mr '63. (MIRA 13:4)

FRENKEL', Ye. B., kand.tekhn.nauk; KHMEL'NITSKAYA, Ye.G.

Use of infrared rays for drying fur skins and cut parts. (MIRA 14:5)
Kozh.-obuv.prom. 3 no.1:25-29 Ja '61.
(Infrared rays—Industrial applications)
(Drying apparatus)
(Fur)

LAKHANIN, V.V., prof., doktor tekhn. nauk; KHMEL'NITSKIY, Ye.P., dotsent; KHOZE, A.N., dotsent, kand. tekhn. nauk; YAVORSKIY, I.A., kand. tekhn. nauk

Using stokers with short chain-grates on river ships. Trudy NIIVTa no.10:98-104 '62. (MIRA 16:6)

1. Sibirskoye otdeleniye AN SSSR.
(Stokers, Mechanical)

KHMEL'NITSKIY, YE. P.

USSR/Radio
Modulation
Modulation Meters

May 1948

"Simple Method for Measuring Modulation Depth," Ye. P. Khmel'nitskiy, Engr, 1 p

"Vest Svyazi - Elektro-Svyaz'" No 5 (98)

Presents system that operates on the principles: Measurement at a high modulation frequency and the use of diode detector. Depth of modulation can be calculated on the formula M E/E', where: E is the amplitude of the fluctuating signal input and E' is the constant component of the E signal.

65T101

KOPYTIN, Leonid Alekseyevich; KHMEL'NITSKIY, Ya.P., otvetstvennyy redaktor; USHOMIRSKAYA, M.M., redaktor; KHELEMSKAYA, L.M., tekhnicheskiy redaktor.

[Technical operation of radio transmitting centers] Tekhnicheskaia ekspluatatsiia peredaiushchikh radiotsentrov. Moskva, Gos. izd-vo lit-ry po voprosam sviazi i radio, 1954. 435 p. [Microfilm](MLRA 8:1)
(Radio--Transmitters and transmitting)

KHMEL'NITSKIY, Ye.P. (Reviewer)

"Organization and operation of radio communication and broadcasting enterprises." A.S.Repin. Reviewed by E.P.Khmel'nitskiii. Vest. sviazi 14 no.1:3 of cover Ja '54. (MLRA 7:5)

1. Glavnyy inzhener radiopredpriyatiya (for Khmel'nitskiy).
(Repin, A.S.) (Radio broadcasting)

KHMEL'NITSKIY, Ye.P.

Quantitative relationships in a two-cycle generator with symmetry-producing induction. Vest.sviazi 14 no.3:7-8 Mr '54. (MLRA 7:5)

1. Glavnyy inzhener radio predpriyatiya.
(Radio--Transmitters and transmission)

KHMEL'NITSKIY, E.P.

USSR/Electronics - Radio-transmitters

Card 1/1 : Pub. 133 - 13/21

Authors : Khmel'nitskiy, E. P., Sr. engr. of a radioenterprise

Title : Let us increase the durability of transmitting equipment

Periodical : Vest. svyazi 9, 31, Sep 1954

Abstract : Questions regarding the durability and regular inspection of transmitting equipment are considered.

Institution : ...

Submitted : ...

KHMEL'NITSKIY, Ye. P.

USSR/ Electronics - Power interruption unit

Card 1/1 Pub. 133 - 13/21

Authors : Khmel'nitskiy, Ye. P., and Syuzev, Ye. N.

Title : Automatic control of an excitor and low-power stages in a transmitter

Periodical : Vest. svyazi 3, page 24, Mar 1955

Abstract : A description is presented of a circuit diagram employed on radio broadcasting stations for automatic control of excitation and the interruption of the power supply to the low-power stages of a transmitter in case of an overvoltage or failure of an excitor or one of the low-power stages. Circuit diagram.

Institution : .....

Submitted : .....

FD-2686

USSR/Electronics-Transmission
KHMEL'NITSKIY, Ye. P.
Card 1/1 Pub. 90-6/11

Author : Khmel'nitskiy, Ye. P.

Title : One method for Increasing Considerably the Oscillatory Power and Efficiency of an Oscillator Operating in Overdriven Conditions

Periodical : Radiotekhnika, 10, 58-63, Aug 1955

Abstract : The author describes new operating conditions, assuring better tube utilization and a considerably increased efficiency, for a tube oscillator. His method is especially applicable to long- and medium-wave transmitters with plate modulation, where it also serves to reduce the power required from the modulator, and to industrial oscillator units operating at 2-3 Mc/sec. The oscillator is operated overdriven, and the harmonic in the necessary phase is produced in the plate circuit not by means of auxiliary circuits, but by optimal detuning of the main oscillatory circuit. Results are cited of tests on an oscillator with the input power ranging between 120 and 150 kw. Graphs, table. Two USSR references.

Institution :

Submitted : March 28, 1955

KHMEL'NITSKIY, Ye.P., inzhener

The use of electronic impulse circuits for the control and cover of powerful rectifiers. Vest. sviazi 15 no.7:5-8 Jl '55. (MIRA 8:8)
(Radio--Transmitters and transmission)

KHMELNITSKIY, YE. P.

AID P - 4235

Subject : USSR/Radio Engineering

Card 1/2 Pub. 90 - 1/8

Author : Khmel'nitskiy, Ye. P.

Title : Principles of construction of a system of output circuits of medium wave transmitters.

Periodical : Radiotekhnika, v. 11, no. 1, 3-6, Ja 1956

Abstract : The author presents a four-circuit system with capacitive coupling. He explains the way of obtaining a coverage of the whole wave-band of the transmitter by a smooth changing of the inductivity of the circuits without modifying operating conditions of the power circuit of the generator. This, according to the author, can be obtained only by a system containing an even number of purely capacitively coupled circuits. One diagram, 1 table.

Radiotekhnika, v. 11, no. 1, 3-6, Ja 1956

Card 2/2 Pub. 90 - 1/8

Institution : None

Submitted : Ap 20, 1955

KHMEL'NITSKIY, Ye.P., inzhener.

The use of magnetic amplifiers in an electronic impulse control diagram and the protection of powerful rectifiers. Vest. svyazi 16 no.2:10-11 F '56. (MIRA 9:7)
(Radio--Rectifiers) (Electronic control) (Magnetic amplifiers)

KHMEL'NITSKIY, Ye.P., inzhener.

Regulating procedure for increasing the efficiency of a transmitter operating with a mistuned circuit. Vest.sviazi 16 no.5:9-10 Je '56. (MLRA 9:8)

(Radio--Transmitters and transmission) (Radio circuits)

KHMEL'NITSKIY, Ye.P., inzhener.

Efficiency indicator for the power stage of a radio transmitter. Vest. sviazi 16 no.12:11-13 D '56. (MLRA 10:2)

(Radio--Apparatus and supplies)

KHMEL'NITSKIY, YE.P.

MODULATION

"Design of Oscillators Operating in Overdriven Mode with Detuned Load" by Ye.P. Khmel'nitskiy, Elektrosvyaz', No 5, May 1957, pp 26-33.

A general description of the operation of a vacuum tube oscillator feeding a detuned load under a strongly overdriven condition was discussed by the author in two earlier articles, one appearing in the August 1955 issue of Radiotekhnika and the other in the June 1956 issue of Vestnik Sbyazi.
This article is devoted to an engineering calculation involved in this mode.

Card 1/1 - 15 -

AUTHOR: Khmel'nitskiy, Ye.P., Engineer SOV/111-58-4-20/34

TITLE: The Application of Vacuum Capacitors in the Circuits of Powerful Medium Wave Transmitters (Ispol'zovaniye vakuumnykh kondensatorov v konturakh moshchnykh radiopereda'chikov srednykh voln)

PERIODICAL: Vestnik svyazi, 1958, Nr 4, p 25 - 26 (USSR)

ABSTRACT: Paraffine-filled capacitors used in medium wave transmitters (200-2,000 m) show defects caused by aging of the dielectric used in them. During the last years the industry began to increase its output of new vacuum capacitors type "KV". The author gives some information concerning the experience with vacuum capacitors installed in the oscillatory circuit of a 100 kw medium wave transmitter. These capacitors are used in groups because of their relatively low capacity, and this is sometimes an advantage since faulty capacitors may be easily exchanged without long interruption of the operation of the transmitter. Experience showed that the majority of the defects was caused by improper assembly. The experimental results justify a large-scale application of vacuum capacitors. There are 2 circuit diagrams and 1 table.

1. Radio transmitters--Equipment 2. Capacitors--Performance
3. Capacitors--Test results

Card 1/1

KHMEL'NITSKIY, Ye.P., inzh.

Eliminate defects in the 50-kilowatt shortwave transmitter.
Vest. sviazi 18 no. 8:27 Ag '58. (MIRA 11:8)
(Radio, Shortwave--Transmitters and transmission)

AUTHOR: Khmel'nitskiy, Ye.P., Engineer SOV/111-58-12-8/38

TITLE: More Courage for Introducing the Latest Technical Achievements (Smeleye vnedryat' noveyshiye dostizheniya tekhniki)

PERIODICAL: Vestnik svyazi, 1958, Nr 12, p 3 (USSR)

ABSTRACT: The power of the present radio stations may be easily increased by installing modern equipment, but operational personnel must show more courage in introducing the latest achievements of engineering. For example, the capacity of many radio transmitters may be increased by changing the grid modulation to the more economic auto-anode modulation, and in some cases to anode modulation.

Card 1/1

87321

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B012/B054

9.1100

AUTHOR: Khmel'nitskiy, Ye. P., Engineer

TITLE: "Feeder - Antenna" T-Transition Circuit

PERIODICAL: Vestnik svyazi, 1960, No. 2 (239), pp. 12-14

TEXT: The present paper gives data characterizing a T-circuit with a complex capacitive coupling. As compared with L-circuits, which are also studied here and have a very difficult frequency tuning, the T-circuit is of universal use. It warrants the tuning of the system over the whole waveband of medium- and longwave transmitters; the individual elements need not be selected by means of experiments. These circuits are used between feeder and antenna. The author studied the operation of the circuits under a load which corresponds to the feeder wave resistance. For all circuits investigated, he assumes a top-loaded vertical antenna 150 m high, and an FK-10/12-60 (FK-10/12-60) feeder with a wave resistance of 60 ohms. On the basis of experimental data, the antenna has a designed height of $H^{\circ} = 190$ m. Circuits are calculated for a range of $mH^{\circ} = 120^{\circ} \div 275^{\circ}$, which corresponds to a wavelength of $\lambda = 570 \div 248$ m.

Card 1/2

Puc. 5

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S/106/60/000/005/004/009
A055/A133

9.3210

AUTHOR: Khmel'nitskiy, Ye. P.

TITLE: Some peculiarities of the analysis of the heavy-overvoltage operation of an oscillator with complex load

PERIODICAL: Elektrosvyaz', no. 5, 1960, 22-27

TEXT: This article is a supplement to the author's earlier articles [Ref. 1: "Ob odnom sposobe znachitel'nogo povysheniya kolebatel'noy moshchnosti i kpd generatora, rabotayushchego v perenapriyazhennom rezhime") ("A method for increasing considerably the oscillating power and the efficiency of an oscillator in overvoltage operation"), Radiotekhnika, v. 10, no. 8, 1955, and Ref. 2: "Raschet generatora v perenapryazhennom rezhime pri rasstroyennoy nagruzke" ("Design of an oscillator in overvoltage operation at detuned load"), Elektrosvyaz', no. 5, 1957] devoted to overvoltage operation of tube oscillators. In the present article (where the same symbols and subscripts are used without explanation), a more accurate analysis is given of the following items: 1) maximum admissible utilization factor of anode voltage ξ at a given shape of the current pulse; 2) the phase angle φ_1; 3) the right-hand limit of the

Some peculiarities of the analysis ...

trough in the anode current pulse. Calculations and experimental tests showed that the choice of ξ based exclusively on the left-hand limit of the trough leads sometimes to results very different from the calculated ones. A limit to the possible increase of ξ limit is determined by the necessity of the intersection of the fundamental frequency voltage curve u_{a1} with axis E_o (point ωt_4) within the region where the compensating effect of the higher harmonic voltage still exists. If this condition is not fulfilled, a second trough appears in the pulse (between points ωt_5 and ωt_6). It proved practical to choose ξ so that point ωt_4 should be distant by angle φ_{i1} from, and placed to the right of, the pulse center. The formulae satisfying this condition are:

$$\arccos \frac{1}{\xi} = 0.5\psi + 0.25\,\theta_1 - 0.5\,\varphi_{i1} = \varphi_1,$$

$$\beta = \psi - \frac{\theta_1}{2},$$

and $\varphi_{u1} = \varphi_i + \varphi_{i1}$.

Since $\cos \varphi_i = \frac{1}{\xi}$, the formula giving the efficiency is simplified and becomes:

Card 2/5

Some peculiarities of the analysis ...

$$\eta = \frac{\xi\gamma}{2} \cos \varphi_1 = \frac{\gamma}{2},$$

A more precise determination of the right-hand limit of the trough is effected by taking into account magnitudes B and β (which concern directly the right-hand-limit) in formula:

$$C = \frac{530 \lambda B I_m}{U_a \cos (\beta - \varphi_{u1}) - E_o},$$

giving the necessary value of the capacitance in the tube anode circuit. In this formula, B, which is:

$$B = \frac{\alpha 2}{2} \sin (2\psi - \theta_1 - \varphi_{12}) + \frac{\alpha 3}{3} \sin (3\psi - 1.5\,\theta_1 - \varphi_{13})$$

determines, together with I_m and the denominator, the value of x_c (impedance of the capacitive arm of the circuit) ensuring the necessary harmonic voltage at the moment corresponding to angle β. Having given these new formulae, the author refutes some simplifications suggested by M. G. Margolin [Ref. 5: "Raschet lampovogo generatora v perenapryazhennom rezhime" ("Design of a tube oscillator with complex load in overvoltage operation"), Radiotekhnika, v. 13, no. 10, 1958]

26430
S/106/60/000/005/004/009
A055/A133

Some peculiarities of the analysis ...

He derives a formula for the maximum value of the phase angle:

$$\varphi_{1max} = \text{arc tg}\left(\frac{A^2+1}{4A} - \frac{A^2}{A^2+1}\right)$$

where $A = \frac{x_c}{R_{ae\,0}}$, $R_{ae\,0}$ being the equivalent impedance of the circuit at resonance. In a practical calculation, when φ_1 and the circuit impedance z_1 are known, it proves necessary, for the determination of the cirbuit parameters, to use the formula $\varphi_1 = f(A)$ and to choose the value of A allowing to obtain the required angle φ_1. The two following formulae are given by the author for this determination:

$$\frac{x_L}{R_{ae\,0}} = \frac{A}{2} + \sqrt{\left(\frac{A}{2}\right)^2 - \frac{\operatorname{tg}\varphi_1 A^3(A^2+1)+A^4}{(A^2+1)^2}},$$

and

$$x_C = z_1\sqrt{\frac{\frac{A^4}{(A^2+1)^2} + \left(\frac{x_L}{R_{ae\,0}}\right)^2 - 2A\frac{x_L}{R_{ae\,0}} + A^2}{\frac{A^4}{(A^2+1)^2} + \left(\frac{x_L}{R_{ae\,0}}\right)^2}}.$$

Card 4/5

26430
S/106/60/000/005/004/009
A055/A133

Some peculiarities of the analysis ...

There are 6 figures and 5 Soviet-bloc references.

SUBMITTED: February 1, 1960

Card 5/5

KHMEL'NITSKIY, Ye.P.

Analysis of a strongly overloaded oscillator with a complex impedance load. Elektrosviaz' 14 no.5:22-27 My '60. (MIRA 13:8)
(Oscillators, Electron-tube)

KHMEL'NITSKIY, Ye.P., insh.

T-type antenna-transmission line matching network. Vest. sviazi 20 no.2:12-14 F '60. (MIRA 13:5)
(Antennas (Electronics)) (Coaxial lines)
(Electric filters)

GOROKHOVSKIY, Anatoliy Vladimirovich; KRUKL'NITSKIY, Yevgeniy Pavlovich; FEDUNIN, G.A., otv.red.; NOVIKOVA, Ye.S., red.; MARKOCH, K.G., tekhn.red.

[Communications technician servicing radio stations] Monter sviazi po obsluzhivaniiu radiostantsii. Moskva, Gos.izd-vo lit-ry po voprosam sviazi i radio, 1961. 391 p. (MIRA 14:3)

(Radio stations--Maintenance and repair)
(Electronic technicians--Handbooks, manuals, etc.)

KHMEL'NITSKIY, Ye.P.

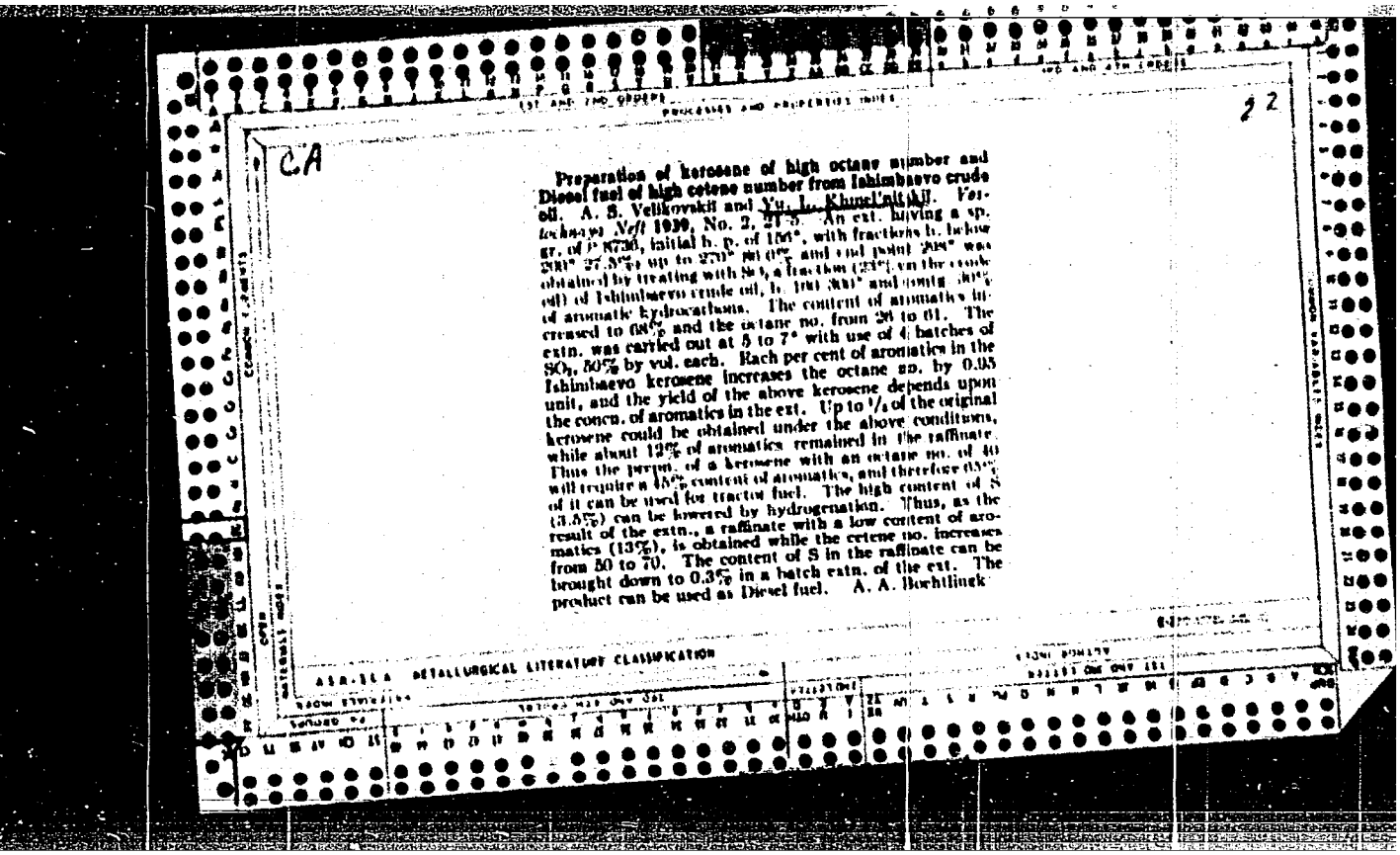
Plate modulation with presence of overvoltage and complex load.
Elektrosviaz' 15 no.8:20-25 Ag '61. (MIRA 14:7)
(Modulation (Electronics))

KHMEL'NITSKIY, Yevgeniy Pavlovich; BLAGOVESHCHENSKIY, M.V., kand. tekhn. nauk, otv. red.; VENGRENYUK, L.I., red.; SLUTSKIN, A.A., tekhn. red.

[Operation of an electron-tube oscillator with a detuned circuit] Rabota lampovogo generatora na rasstroennyi kontur. Moskva, Sviaz'izdat, 1962. 109 p. (MIRA 15:9)
(Oscillators, Electron-tube)

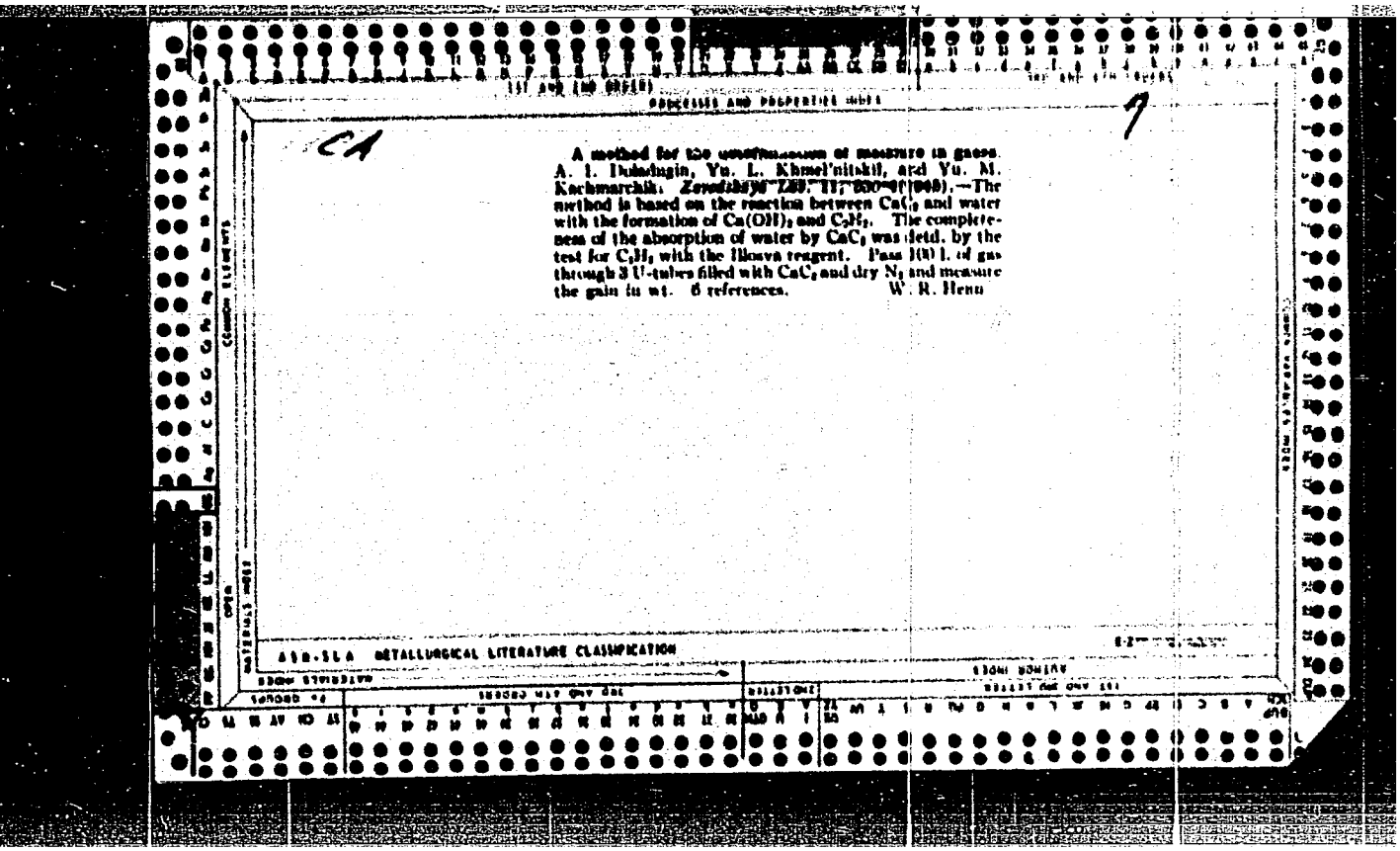
KHOLIN, Aleksandr Tikhonovich; KHMEL'NITSKIY, Ye.P., otv. red.; VEYTSMAN, G.I., red.

[Automatic and remote control in radio stations] Avtomatika i telеupravlenie na radiostantsiiakh. Moskva, Izd-vo "Sviaz'," 1965. 398 p. (MIRA 18:5)



CA

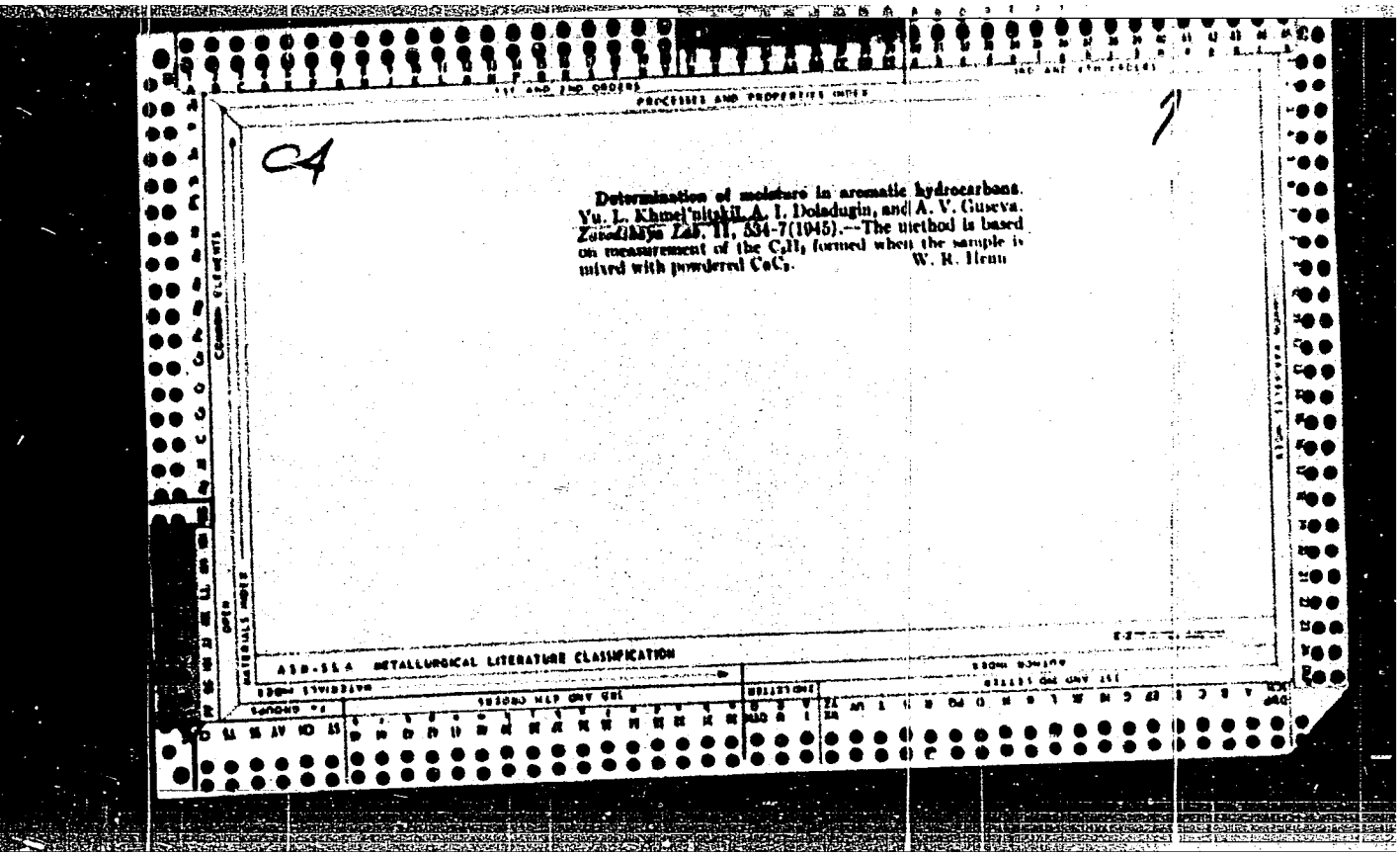
Preparation of kerosene of high octane number and Diesel fuel of high cetene number from Ishimbaevo crude oil. A. S. Velikovskii and Yu. L. Khurgin. *Neftekhozyaistvo Neft* **1939**, No. 2, 21-5. An ext. having a sp. gr. of 0.8730, initial b. p. of 150°, with fractions b. below 300° 27.5% up to 270° 80.0%, and end point 308° was obtained by treating with SO_2 a fraction (23%) on the crude oil) of Ishimbaevo crude oil, b. 180-300° and containing 30% of aromatic hydrocarbons. The content of aromatics increased to 68% and the octane no. from 20 to 61. The extn. was carried out at 5 to 7° with use of 4 batches of SO_2, 50% by vol. each. Each per cent of aromatics in the Ishimbaevo kerosene increases the octane no. by 0.95 unit, and the yield of the above kerosene depends upon the concn. of aromatics in the ext. Up to ½ of the original kerosene could be obtained under the above conditions, while about 12% of aromatics remained in the raffinate. Thus the kerosene with an octane no. of 40 will require a 15% content of aromatics, and therefore 85% of it can be used for tractor fuel. The high content of S (3.5%) can be lowered by hydrogenation. Thus, as the result of the extn., a raffinate with a low content of aromatics (13%), is obtained while the cetene no. increases from 50 to 70. The content of S in the raffinate can be brought down to 0.3% in a batch extn. of the ext. The product can be used as Diesel fuel. A. A. Berhtlingk



C1

A method for the quantitative measure in gases. A. I. Dubadugin, Yu. L. Khmel'nitskii, and Yu. M. Kachmarchik. *Zavodskaya Lab.* 27, 830–1 (1961).—The method is based on the reaction between CaC_2 and water with the formation of $Ca(OH)_2$ and C_2H_2. The completeness of the absorption of water by CaC_2 was tested by the test for C_2H_2 with the Ilosva reagent. Pass 100 l. of gas through 3 U-tubes filled with CaC_2 and dry N_2 and measure the gain in wt. 6 references. W. R. Henn

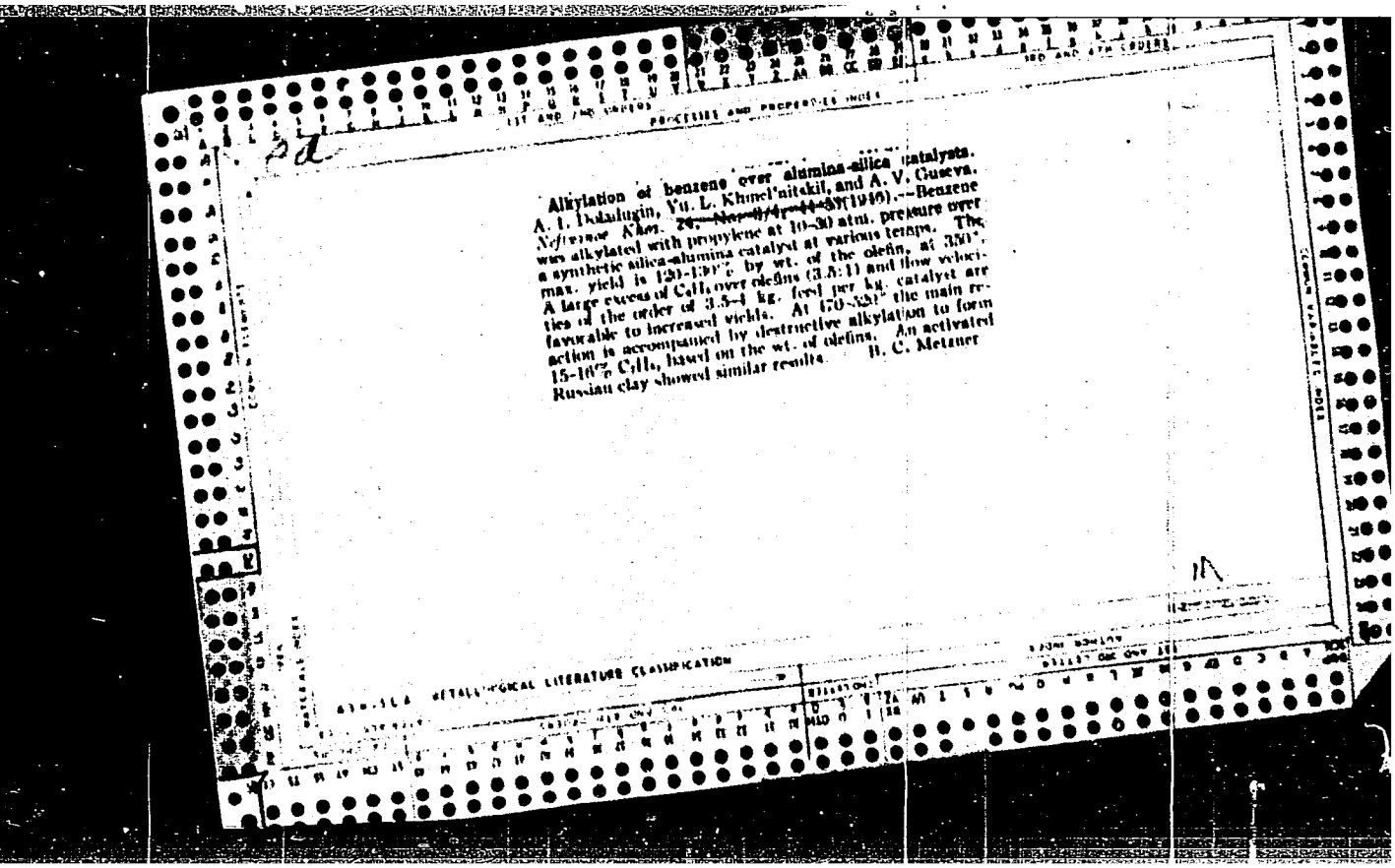
A58-51A METALLURGICAL LITERATURE CLASSIFICATION



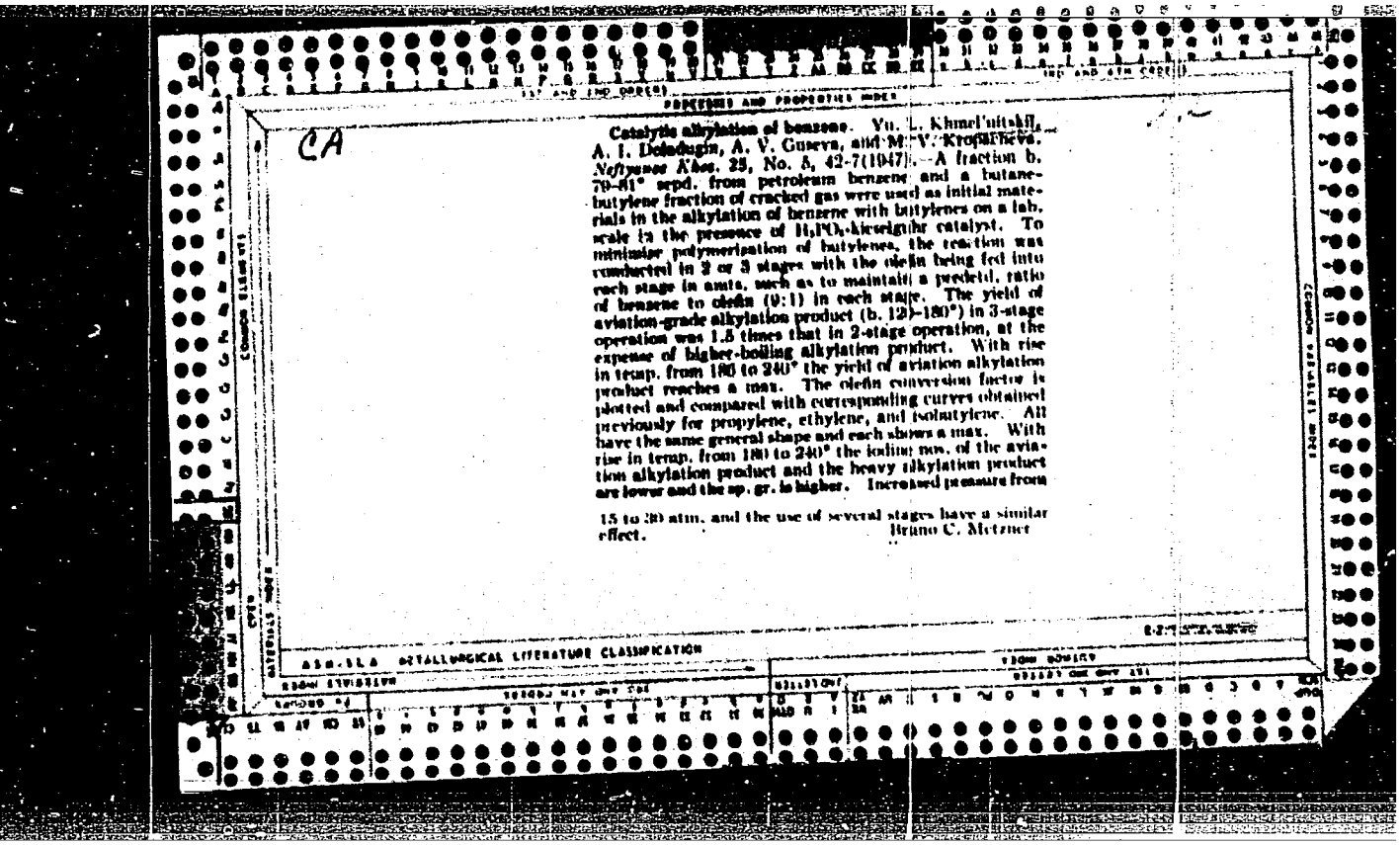
C4

Determination of moisture in aromatic hydrocarbons. Yu. L. Khmel'nitskii, A. I. Doladugin, and A. V. Guseva. Zavodskaya Lab. 11, 534-7(1945).—The method is based on measurement of the C_2H_2 formed when the sample is mixed with powdered CaC_2. W. R. Henn

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION



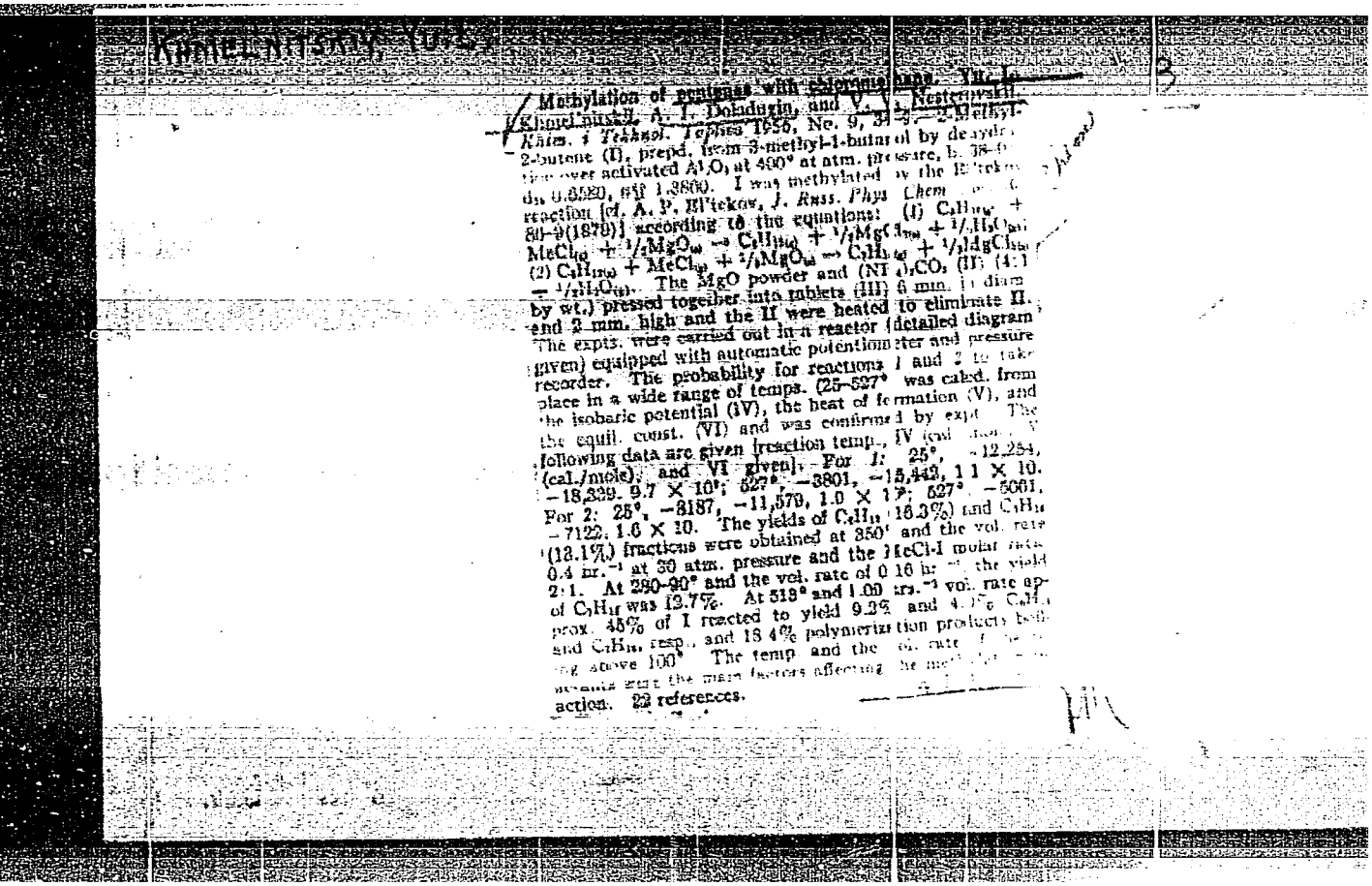
Alkylation of benzene over alumina-silica catalysts. A. I. Dolmalugin, Yu. L. Khmel'nitskii, and A. V. Guseva. *Neftyanoe Khoz.* 24, No. 9/10, 44-57(1946).—Benzene was alkylated with propylene at 10–30 atm. pressure over a synthetic silica-alumina catalyst at various temps. The max. yield is 120–130° C. by wt. of the olefin, at 350°. A large excess of C_3H_6 over olefins (3.5:1) and low velocities of the order of 3.5–4 kg. feed per kg. catalyst are favorable to increased yields. At 470–525° the main reaction is accompanied by destructive alkylation to form 15–16% C_3H_8, based on the wt. of olefins. An activated Russian clay showed similar results. H. C. Metauer



CA

Catalytic alkylation of benzene. Yu. L. Khmel'nitskii, A. I. Dolodugin, A. V. Gueva, and M. V. Kropacheva. *Neftyanoe Khoz.* 25, No. 5, 42-7(1947).—A fraction b. 79–81° sepd. from petroleum benzene and a butane-butylene fraction of cracked gas were used as initial materials in the alkylation of benzene with butylenes on a lab. scale in the presence of H_3PO_4-kieselguhr catalyst. To minimize polymerization of butylenes, the reaction was conducted in 2 or 3 stages with the olefin being fed into each stage in amts. such as to maintain a predetd. ratio of benzene to olefin (9:1) in each stage. The yield of aviation-grade alkylation product (b. 120–180°) in 3-stage operation was 1.5 times that in 2-stage operation, at the expense of higher-boiling alkylation product. With rise in temp. from 180 to 240° the yield of aviation alkylation product reaches a max. The olefin conversion factor is plotted and compared with corresponding curves obtained previously for propylene, ethylene, and isobutylene. All have the same general shape and each shows a max. With rise in temp. from 180 to 240° the iodine nos. of the aviation alkylation product and the heavy alkylation product are lower and the sp. gr. is higher. Increased pressure from 15 to 30 atm. and the use of several stages have a similar effect.

Bruno C. Metzner



Methylation of propylene with chloromethane. Yu. I. [illegible] Neftekhimiya, A. I. Dolidugin, and V. [illegible] Nesterenkin. *Khim. i Tekhnol. Topliv* 1956, No. 9, 3[illegible] 2-Methyl-2-butene (I), prepd. from 3-methyl-1-butanol by dehydration over activated Al_2O_3 at 400° at atm. pressure, b. 38–9°, d_4^{20} 0.6520, n_D^{20} 1.3800. I was methylated by the Friedel-Crafts reaction [cf. A. P. Bilitzkov, *J. Russ. Phys. Chem. Soc.* 2, 80–9(1870)] according to the equations: (1) $C_5H_{10w} + MeCl_w + {}^1/_2MgO_w \rightarrow C_6H_{12w} + {}^1/_2MgCl_{2w} + {}^1/_2H_2O_w$; (2) $C_6H_{12w} + MeCl_w + {}^1/_2MgO_w \rightarrow C_7H_{14w} + {}^1/_2MgCl_{2w} + {}^1/_2H_2O_w$. The MgO powder and $(NH_4)_2CO_3$ (II) (4:1 by wt.) pressed together into tablets (III) 6 mm. in diam and 2 mm. high and the II were heated to eliminate II. The expts. were carried out in a reactor (detailed diagram given) equipped with automatic potentiometer and pressure recorder. The probability for reactions 1 and 2 to take place in a wide range of temps. (25–527° was calcd. from the isobaric potential (IV), the heat of formation (V), and the equil. const. (VI) and was confirmed by expt. The following data are given [reaction temp., IV (cal./mole), and VI given]: For 1: 25°, −12,254, −18,339, 9.7×10^9; 527°, −3801, −15,442, 1.1×10. For 2: 25°, −8187, −11,579, 1.0×1[illegible]; 527°, −5061, −7122, 1.6×10. The yields of C_6H_{12} (18.3%) and C_7H_{14} (13.1%) fractions were obtained at 350° and the vol. rate 0.4 hr.$^{-1}$ at 30 atm. pressure and the MeCl-I molar ratio 2:1. At 280–90° and the vel. rate of 0.16 hr.$^{-1}$ the yield of C_7H_{14} was 13.7%. At 518° and 1.00 hr.$^{-1}$ vol. rate approx. 45% of I reacted to yield 9.2% and 4.0% C_6H_{12} and C_7H_{14}, resp., and 18.4% polymerization products boiling above 100°. The temp and the vol. rate [illegible] are the main factors affecting the [illegible] action. 22 references.

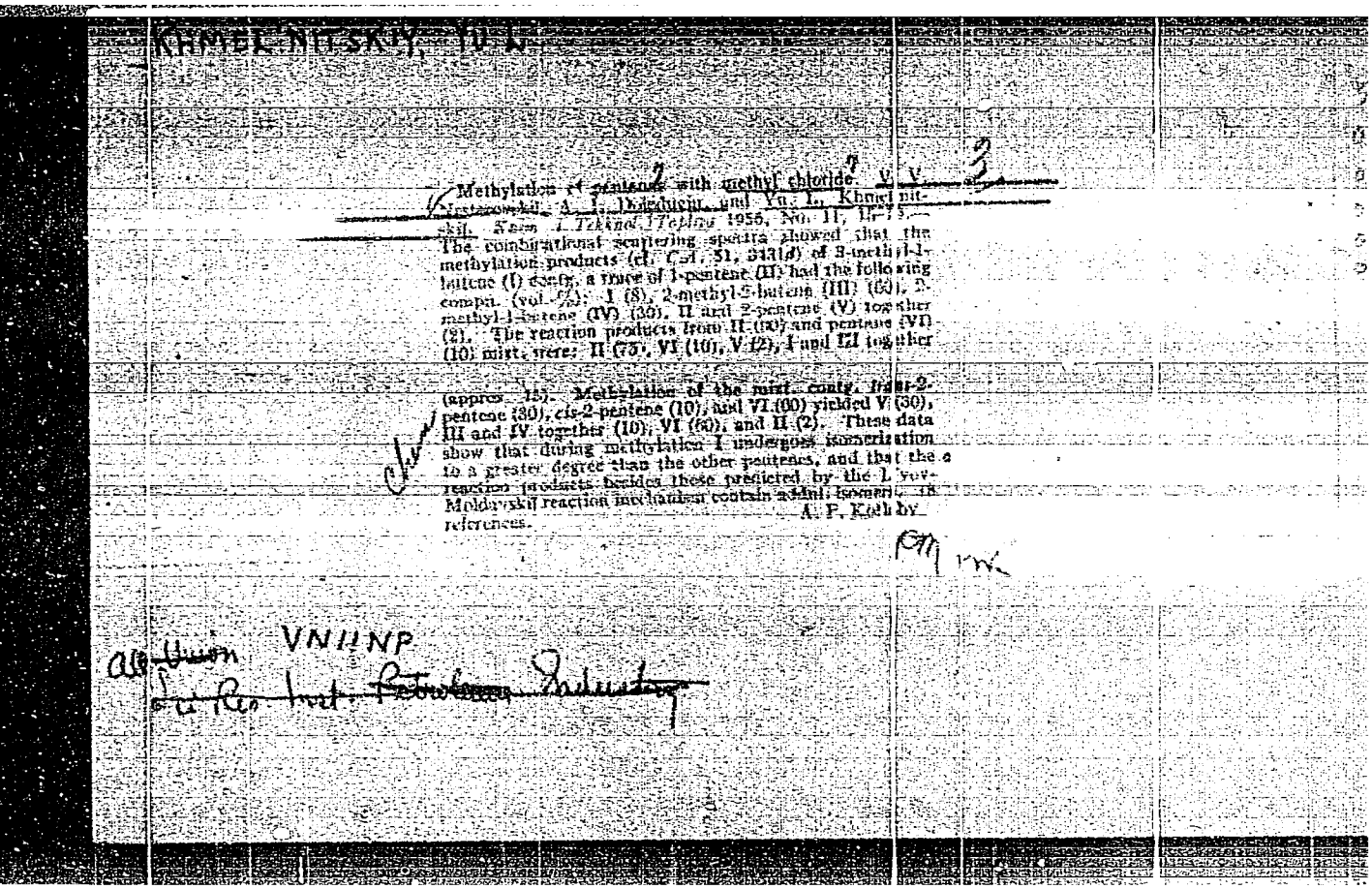
KHMELNITSKIY, Yu. L.

Chem

Methylation of pentanes with methyl chloride. A. I. Dolgaugin, V. V. Nesterovskii, and Yu. L. Khmel'nitskii. *Khim. i Tekhnol. Topliva* No. 10, 28-31(1956).—The products of methylation (cf. *C.A.* 51, 2330a) as detd spectroscopically were found to be: fraction b. 45-75°, contained of 60-84% 2,2-dimethylbutane and 40-16% methylpentanes; the 75-100° fraction, 48-78% 2,2,3-trimethylbutane, 5-10% 2,4-dimethylpentane, 14-94% 2,3-dimethylbutane, 5-10% 2-methylhexane; the 100-25° fraction, [illegible] 2,3,4-trimethylpentane, 24% 2,3,3-trimethylpentane, 11% 2,2,3-trimethylpentane, 10% 2,5-dimethylhexane, and 2,4-dimethylhexane, 2,3-dimethylhexane, 3-methylheptane, the last three components together comprising 33% of the fraction; a small fraction, b. 160-200°, contg. mainly paraffinic and a trace of aromatic hydrocarbons. The residue b. above 200° gave upon recrystn. from EtOH colorless crystals, m. 130-3°, of $C_{24}H_{50}$. 13 references.

A. P. Kolosov

All-Union Sci. Res. Inst. [illegible] Laboratory for Processing Petroleum & Gas and Obtaining Synthetic Liquid Fuels



KHMEL'NITSKII, Yu. N.

Methylation of pentenes with methyl chloride. V. V. Kostrovskii, A. I. Dekabrun, and Yu. N. Khmel'nitskii. *Neft. i Tekhnol. Topliva* 1956, No. 11, [illegible]. The combinational scattering spectra showed that the methylation products (cf. *C.A.* 51, 5131*d*) of 3-methyl-1-butene (I) contg. a trace of 1-pentene (II) had the following compn. (vol. %): I (8), 2-methyl-2-butene (III) (60), 2-methyl-1-butene (IV) (30), II and 2-pentene (V) together (2). The reaction products from II (30) and pentene (VI) (10) mixt. were: II (75), VI (10), V (2), I and III together (approx. 13). Methylation of the mixt. contg. trans-2-pentene (30), cis-2-pentene (10), and VI (60) yielded V (30), III and IV together (10), VI (60), and II (2). These data show that during methylation I undergoes isomerization to a greater degree than the other pentenes, and that the reaction products besides those predicted by the Lyov-Moldavskii reaction invariably contain additional isomers. A. P. Kuh by

VNIINP
All-Union Sci. Res. Inst. Petroleum Industry

KHMEL'NITSKIY, Yu. L.

PHASE I BOOK EXPLOITATION 307/1297

Vsesoyuznaya nauchno-tekhnicheskaya konferentsiya po primeneniyu radioaktivnykh i stabil'nykh izotopov i izlucheniy v narodnom khozyaystve i nauke, Moscow, 1957

Polucheniye izotopov. Moskhaniye gamma-ustanovki. Radiometriya i defektoskopiya; trudy konferentsii... (Isotope Production. High-energy Gamma-Radiation Facilities. Radiometry and Defectoscopy; Transactions of the All-Union Conference on the Use of Radioactive and Stable Isotopes and Radiation in the National Economy and Science) Moscow, Izd-vo AN SSSR, 1958. 293 p. 5,000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Otdeleniye prikladnoy khimii i atomnoy energii SSSR.

Editorial Board: Frolov, Yu.S. (Resp. Ed.); Zhavoronkov, N.M. (Deputy Resp. Ed.); Aglintsev, K.K.; Alekseyev, B.A.; Bochkarev, V.V.; Zelenkinskiy, P.I.; Nikov, V.F.; Sinitsyn, V.I., and Popova, O.S. (Secretary); Tech. Ed.: Koriakov, N.D.

PURPOSE: This collection is published for scientists, technologists, persons engaged in medicine or medical research, and others concerned with the production and/or use of radioactive and stable isotopes and radiation.

COVERAGE: Thirty-eight reports are included in this collection under three main subject divisions: 1) production of isotopes 2) high-energy gamma-radiation facilities, and 3) radiometry and dosimetry.

TABLE OF CONTENTS:

PART I. PRODUCTION OF ISOTOPES

Frolov, Yu.S., V.V. Bezbarev, and Ye.Ye. Kulish. Development of Isotope Production in the Soviet Union 5
This report is a general survey of production methods, apparatus, raw materials, applications, investigations and future prospects for radio isotopes in the Soviet Union.

Card 2/12

Abushkin, A.V., I.V. Vonsenenskaya, M.G. Zhirov, V.I. Izrailovskiy, and Yu.V. Izmaylovskiy. Laboratory Employing Cobalt Katorga 189

Izrailovskiy, V.I. Sources of Ionizing Radiation for Use in Radiation Chemistry 193

Perlovskiy, Ye.S., A.V. Bibergal', and U.Ya. Margulis. A Pilot Plant Installation for the Radiation Disinfestation of Grain 200

Chernyayev, N.D. Gamma-Radiators for the Preservation of Food Products 206

PART III. RADIOMETRY AND DOSIMETRY

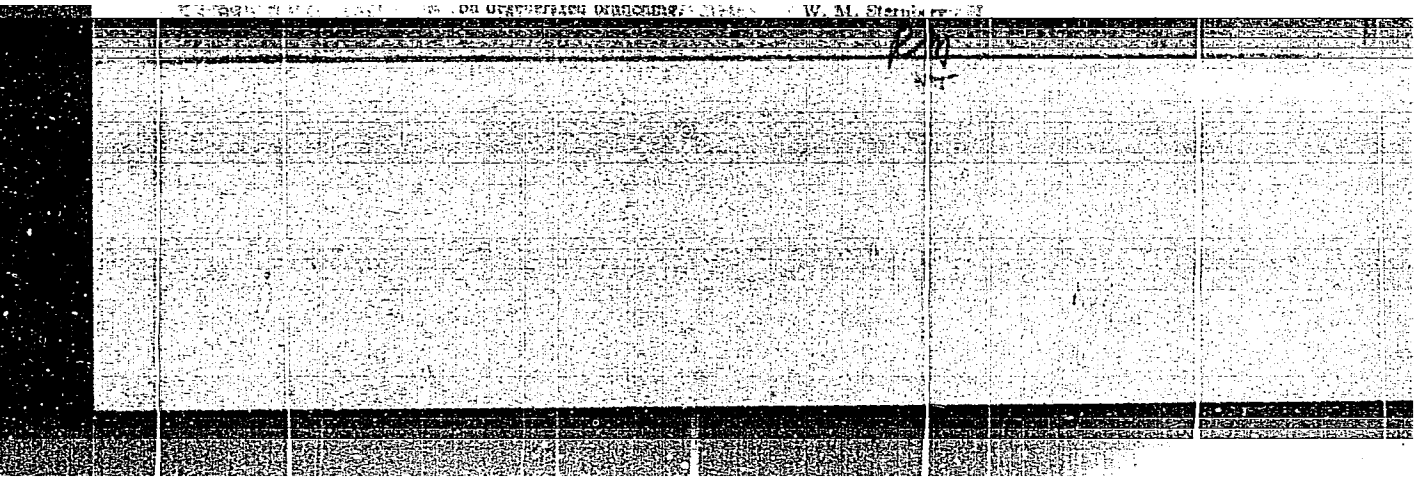
Adrova, N.A., N.M. Koton, Yu.N. Panov. Utilizing Scintillating Plastics to Register Radioactive Emissions 213

Gol'bak, G.R., and A.N. Vyal'shin. Using Soviet Germanium Transistors in Building Radiometric Equipment 220

Card 9/12

KIMELNITSKIY, Yu. L.

The effect of γ-radiation upon the reverse addition reaction. M. A. Proskurnin, Yu. L. Kimel'nitskiy, [illegible] Parshin, A. A. [illegible], and I. V. [illegible]. *Doklady Akad. Nauk S.S.S.R.* 114, 588-9(1957).—The o tane oxidation with mol. O initiated by irradiation from C[illegible] was studied in an app. designed and illustrated which permitted the removal of the reaction initiator after the start of the reaction, and the sampling of the liquid during irradiation. The reaction was studied by analyzing the products of the oxidation and deriving from the analysis the kinetic equation of the reaction. The best results were obtained with an irradiation for 20 min. The results were discussed in accordance with Semenov's (*C.A.* 50, 16903f) view [illegible]



SOV/65-58-10-8/15

AUTHORS: Khmel'nitskiy, Yu. L. and Tsiguro, T. A.

TITLE: The Solubility of Aluminium Chloride in Isobutane (Rastvorimost' khloristogo alyuminiya v izobutane)

PERIODICAL: Khimiya i Tekhnologiya Topliv i Masel, 1958, Nr 10, pp 36 - 40 (USSR)

ABSTRACT: The complexity of supplying anhydrous aluminium chloride into the reactor creates difficulties during a number of industrial processes where aluminium chloride is used as a catalyst. The activity of the catalyst can only be maintained constant by introducing continuously fresh $AlCl_3$. Investigations were carried out as to the possibility of using $AlCl_3$ in the form of a solution in isobutane. A specially-designed laboratory apparatus was used (Fig.1). The isobutane fraction contained 91% isobutane, 3% normal butane, 4% propane and 2% pentane and higher hydrocarbons. Experimental data on the solubility of $AlCl_3$ in isobutane is shown in Fig.2. The dependence of the solubility of $AlCl_3$ in isobutane on the temperature and volume rate was also determined. In addition, it was necessary to ascertain whether the $AlCl_3$ solution remained identical, or whether complex compounds were

Card 1/3

The Solubility of Aluminium Chloride in Isobutane

formed. Differential heats of solution of $AlCl_3$ at saturation of the solution were also calculated. The equilibrium in the system: solution - dissolved substances, is determined in accordance with Gibbs' law. The functional dependence of the solubility on the temperature at constant pressure in an ideal system, where there is no chemical interaction between the components, can be determined according to the Clapeyron and Clausius equation. Calculated results are tabulated (Table 1). A graph in Fig.3 shows the dependence of the logarithms of solubility on the values of corresponding inverse absolute temperatures. The differential heat of solution was found to be independent of the concentration of the solution within large limits of concentration. An increase in the temperature makes it possible to obtain high concentrations of the aluminium chloride solution in isobutane; this is more satisfactory than reducing the volume rate of isobutane through the saturator. Experimentally determined heats of solution (11 ccal/mole) are much lower than the sublimation heats which vary

The Solubility of Aluminium Chloride in Isobutane SOV/65-58-10-8/15

according to different authors between 26.5 to 27.4 cal/mole. There are 3 Figures and 1 Table.

ASSOCIATION: VNII NP

Card 3/3

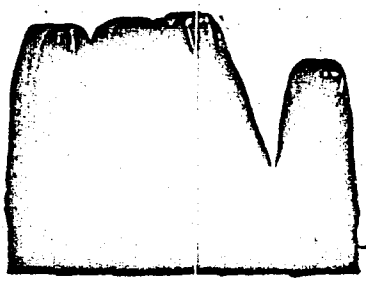
KHMEL'NITSKIY, Yu. L.

РАЗДЕЛЕНИЕ РАЗЛИЧНЫХ ТИПОВ УГЛЕВОДОРОДОВ

[redacted]

VIII Mendeleyev Congress for General and Applied Chemistry
Section of Chemistry and Chemical Technology of Fuels,
publ. by Acad. Sci. USSR, Moscow 1959

abstracts of reports scheduled to be presented at above mentioned congress,
Moscow, 13 March 1959.



KHMEL'NITSKIY, Yu.L.; SLEPNEVA, A.T.; MELENKHONOVA, I.I.

Oxidation of industrial paraffin under gamma radiation. Khim. i tekh.topl. i masel 4 no.1:25-27 Ja '59. (MIRA 12:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut neftyanoy promyshlennosti.
(Paraffins) (Gamma rays)

S/844/62/000/000/061/129
D204/D307

AUTHORS: Khmel'nitskiy, Yu. L., Melekhonova, I. I., Nesterovskiy, V. V. and Nikitina, V. M.

TITLE: Radiational oxidation of paraffin and other hydrocarbons

SOURCE: Trudy II Vsesoyuznogo soveshchaniya po radiatsionnoy khimii. Ed. by L. S. Polak. Moscow, Izd-vo AN SSSR, 1962, 362-366

TEXT: The aerial oxidation of γ irradiated technical paraffin was studied in continuation of earlier work. At 130°C, with irradiation of 0 - 350 r/sec (over 3-hr periods), it was found that the rate of reaction increased with increasing dose of γ rays. The overal reaction time was 11 hours. The extent of oxidation (as assessed by the acid number) rose with increasing temperature to a gentle maximum at 150°C for paraffin through which air was bubbled, and which was irradiated at 215 - 455 r/sec; above 150°C other oxidation products formed in preference to acids. A similar phenomenon was observed for the alcohols. The extent of oxidation was greatly increased in

Card 1/2

Radiational oxidation of ...

the case of air-foamed paraffin when the temperature was raised from 120 to 160°C. The yields of carboxylic and hydroxylic compounds were higher in the combined presence of irradiation and a catalyst ($KMnO_4$) than when these agents were used individually. No oxidation occurred at 130°C when vacuum-degassed paraffin was irradiated and held in the absence of oxygen, or when paraffin was held in air but was not irradiated. Slow reaction was observed when oxygen was introduced after irradiation had ceased. Preliminary experiments on p-xylene, diethylbenzene and an olefin fraction (chiefly decene-1) showed that longer side-chains increased the susceptibility of the corresponding organic compounds towards oxidation; the aromatics oxidized largely to carbonyls whilst the decene fraction gave rise to hydroxylic products. The radiation yields were high. The assistance of graduate students of the Moskovskiy khimiko-tekhnicheskiy institut im. D. I. Mendeleyeva (Moscow Chemical and Technological Institute im. D. I. Mendeleyev), N. V. Mostov, A. T. Kop'yev and E. V. Kalinin, working under the supervision of Doctor of Chemical Sciences A. I. Kamneva, is acknowledged. There are 1 figure and 2 tables.

ASSOCIATION: VNII NP

B/844/62/000/000/076/129
D423/D307

AUTHORS: Khmel'nitskiy, Yu. L., Kononova, Ye. M. and Nesterovskiy, V. V.

TITLE: Radiation polymerization of certain lower mono-olefins

SOURCE: Trudy II Vsesoyuznogo soveshchaniya po radiatsionnoy khimii. Ed. by L. S. Polak. Moscow, Izd-vo AN SSSR, 1962, 450-454

TEXT: The polymerization of propylene and iso-butylene was studied. Purified propylene was polymerized in a stainless steel autoclave, using a Co^{60} γ radiation source, with dose intensity of 400 r/sec. The yield of polymer was determined by weighing, and the physical measurements made included average molecular weight, density, bromine number and viscosity. In a series of experiments carried out over the temperature range -75 to +200°C with an irradiation period of 4 hours, polymer radiation yields of 8.2×10^{2} to 4.4×10^{3} mol/100 ev of absorbed energy were obtained. Mean molecular weights ranged from 112 to 200. The rate of polymerization increased signi-

Card 1/2

KHMEL'NITSKIY, Yu.L.; MELEKHONOVA, I.I.; NESTEROVSKIY, V.V.

Oxidation of technical paraffin by oxygen with the aid of gamma rays. Neftekhimiia 2 no.3:368-371 My-Je '62. (MIRA 15:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gaza.
(Paraffins) (Oxygen) (Gamma rays)

KHMEL'NOV, P.M.

Tenth anniversary of the Koryukovka Industrial Paper Mill.
Bum. prom. 34 no.11:27 N '59. (MIRA 13:3)

1.Direktor Koryukovskoy fabriki tekhnicheskikh bumag.
(Koryukovka--Paper industry--Equipment and supplies)

CHUYKO, V.K., inzh.-tekhnolog; KHMEL'NOVA, T.P., konstruktor

Mechanization of labor-consuming works. Bum.prom. 35 no.4:25-27 Ap '60. (MIRA 13:10)

1. Koryukovskaya fabrika tekhnicheskikh bumag.
(Paper industry--Equipment and supplies)

KHMEL'NOY, I.

In the kolkhoz "Borodino" Moskva Moskovskii rabochii, 1953. 53 p.

GAGARIN, A.; KHMEL'NOY, I.; TARARUKHIN, A., red.; PAVLOVA, S., tekhn.red.

[Toward new frontiers for state and collective farms in the vicinity of Moscow] K novym rubezham sovkhozov i kolkhozov Podmoskov'ia. Moskva, Mosk.rabochii, 1960. 82 p. (MIRA 13:9)
(Moscow Province--Agriculture)

KAMYNIN, Mikhail Il'ich, kand. sel'khoz. nauk; LYAKHOV, Aleksandr Ivanovich, kand. sel'khoz.nauk; KHMEL'NOY, I.G., nauchnyy red.; GLAZUNOVA, N.I., red. izd-va; NAZAROVA, A.S., tekhn. red.

[Soil maps for collective and state farms] Pochvennye karty v kolkhozakh i sovkhozakh. Moskva, Izd-vo "Znanie," Vses. ob-va po rasprostraneniiu polit. i nauchn. znanii, 1961. 37 p. (Narodnyi universitet kul'tury. Sel'skokhoziaistvennyi fakul'tet, no.8)
(MIRA 14:8)

(Soils—Maps)

KHMEL'NOY, Ivan Georgiyevich; GLAZUNOVA, N.I., red.; NAZAROVA, A.S., tekhn.red.

[Outstanding people in livestock raising] Maiaki v zhivotnovodstve. Moskva, Izd-vo "Znanie" Vses.ob-va po raspr.polit. i nauchn.znanii, 1961. 39 p. (Narodnyi universitet kul'tury, no.4) (MIRA 14:6)

(Stock and stockbreeding)

TERENT'YEV, Makar Leont'yevich, kand. ekonom. nauk; KHMEL'NOY, I.G., red.; GLAZUNOVA, N.I., red.izd-va; NAZAROVA, A.S., tekhn. red.

[Agricultural planning in collective farms] Planirovanie sel'skokhoziaistvennogo proizvodstva v kolkhozakh. Moskva, Izd-vo "Znanie," 1961. 40 p. (Narodnyi universitet kul'tury: Sel'skokhoziaistvennyi fakul'tet, no.11) (MIRA 14:10)
(Collective farms)